

- *Welcome and thank you for attending.  
The live presentation will start promptly at 7PM.  
Please note this presentation is being recorded.*
- *During the presentation, please type questions into the Q&A box.  
Question will be answered during the Q&A segment.  
Feel free to sign in by entering your name in the Q&A box when joining.*
- *If you are listening on a phone, you will be muted on entry and instructions will be provided on how to unmute and participate.*



**Daniel Boone**  
— HOMESTEAD —

**Public Meeting 1**  
**March 9, 2021**



# Project Committee

- **Greg Apgar** - Maintenance Repairman
- **Jeff Becker** - Building Maintenance Foreman
- **Stephanie Brock** - Equestrian
- **Joe Flannery** - Walker
- **Heather Hicks** - Site Manager
- **Steve Jacoby** - Birdwatcher/Wildlife
- **Michelle Kircher** – Board of Supervisors Liaison
- **Brad Kissam** – Founding Board Member of the Friends of DBH
- **Diane Kruegers** - Volunteer
- **Jim Lewars** – Former Site Administrator
- **Amanda Machik** – Former Museum Director at DBH
- **Janice Mullin** - PHMC Bureau Office
- **David Weld** – Hawk Mountain/Boy Scouts





# Agenda

1. Consultant Team Introduction
2. Project Schedule
3. Scope of Work
4. Demographics
5. Existing Data
  - Site Inventory
  - Natural Resources Inventory
  - Historic Core Structures
  - Site Reconnaissance
6. Berks County Return on Environment Report
7. Brainstorming and Discussion
8. Online Public Opinion Survey
  - <https://www.surveymonkey.com/r/DanielBooneHomestead>
9. Wiki Mapping
  - <https://wikimapping.com/DanielBooneHomestead.html>
10. Next Steps





# Consultant Team

## SIMONE COLLINS LANDSCAPE ARCHITECTURE - 610.239.7601

- **Peter Simone, RLA, FASLA, Principal**  
[psimone@simonecollins.com](mailto:psimone@simonecollins.com)
- **Pankaj Jobanputra, AICP, Project Manager**  
[pjobanputra@simonecollins.com](mailto:pjobanputra@simonecollins.com)
- **Melissa Barley, Staff Landscape Architect**  
[mbarley@simonecollins.com](mailto:mbarley@simonecollins.com)
- **Geoff Creary, Land. Arch., Trails & Connectivity Expert / Graphics**  
[gcreary@simonecollins.com](mailto:gcreary@simonecollins.com)

## APPLIED ECOLOGICAL SERVICES, Inc. (AES)

- **Michael J. McGraw, MES, QAWB, ACE, Senior Wildlife Biologist, Ecologist**  
[michael.mcgraw@appliedeco.com](mailto:michael.mcgraw@appliedeco.com)
- **Jessie Buckner, M.S., Ecologist**  
[jessie.buckner@appliedeco.com](mailto:jessie.buckner@appliedeco.com)

## Frens and Frens, LLC.

- **Carol Quigley, Senior Designer/Project Manager**  
[cquigley@patterhn-ives.com](mailto:cquigley@patterhn-ives.com)





# Consultant Team

## Simone Collins Landscape Architecture projects

### Pennsbury Manor

Morrisville,  
Bucks County,  
Pennsylvania



Historic Landscape  
Site Design

Simone Collins is a part of a multi-disciplinary team selected by the Pennsylvania Department of General Services to complete site improvements at Pennsbury Manor, William Penn's home on the banks of the Delaware River, located in Morrisville, PA. SC's services include circulation system upgrades and planting design in conformance to the Secretary of the Interior's Standards for the Treatment of Historic Properties.



WWW.SIMONECOLLINS.COM

302.413.0714 - 978

Chester County,  
Pennsylvania

### Fricks Lock Village



Heritage Development  
Master Planning

Simone Collins served as the prime consultant to East Coventry Township to prepare a Feasibility Study for Fricks Lock Village in Chester County, Pennsylvania. The historic canal village is an 18-acre site along the Schuylkill River, with a remarkable collection of extant artifacts from the nation's canal era. SC analyzed the potential for adaptive reuse and interpretation of multiple historic structures, including Locks #54 and #55 and aqueduct of the former Schuylkill River Navigation System. The Village was identified as a premier cultural and historic resource in the Schuylkill River Heritage Corridor Management Action Plan and is eligible for listing in the National Register of Historic Places. The study was completed in 2001.

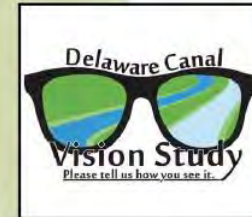


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### Delaware Canal Vision Study

Bucks & Northampton  
Counties,  
Pennsylvania



Regional Planning  
Public Involvement  
Graphic Analysis

Simone Collins is the prime consultant for the Delaware & Lehigh National Heritage Corridor, Inc. and its partners, DCNR, Delaware Canal 21 and the Friends of the Delaware Canal, to conduct a public "Vision" study funded by the William Penn Foundation.

This visioning process identifies issues and opportunities along the entire 60-mile Delaware Canal State Park and D&L Trail between Easton and Bristol, Pennsylvania.

SC led six public meetings and multiple stakeholder meetings to engage partners in articulating goals for creating a fully sustainable, watered Canal for the 21st Century.



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## Daniel Boone Homestead Master Plan



# Consultant Team

- Applied Ecological Services projects

## Bradley Lake Restoration Lake, Pond, and Shoreline Restoration Design



Proposed Lake and Channel Restoration Grades (1" Contours): Green: Emergent Vegetation; Light Blue: Floating Aquatic or Aquatic Vegetation; Blue: Deep Over-Wintering Fish Pool; Orange: Riprapped Area.

**Client:** Foth Infrastructure & Environment - DePere  
**Contact:** Staci Goetz, Project Geologist  
920.582.8094  
staci.goetz@foth.com  
**Project Type:** Habitat Restoration Plan  
**Location:** Sturgeon Bay, Door County, WI  
**Timeline:** 2016 - 2018



www.appliedeco.com

In November 1929, the City of Sturgeon Bay, WI purchased Bradley Lake (then known as Little Lake) and 25 acres south of the Lake. Little Lake had become a bog or mud flat due to the industrial and landfill activities of a sawmill and the dumping of refuse in the area of the partially-filled lake, thus contaminating the lake area and groundwater essentially leaving Little Lake with no commercial value. Efforts began in 1931 to revitalize the area, but failed due to the economy and Great Depression.

The City has been working for over a decade to restore the water quality to this seepage lake that has been degraded primarily by urban stormwater runoff. Pre-treatment wetlands have recently been created to filter the runoff. The next phase involves the removal of high nutrient sediment from the lakebed and the development of aquatic habitat conducive to sustaining native fish species.

In 2016, AES and Foth worked together to develop a concept habitat restoration plan for Bradley Lake in conjunction with a lake dredging plan prepared by Foth. The general goal of the restoration plan was to incorporate a high quality fishery habitat into the dredging plan in such a way that is aesthetically pleasing in a community park setting (Sunset Park), and provides access for fishing.

Because Bradley Lake is hydrologically connected to Lake Michigan, the concept plan is intended to provide deep (> 10'), transitional (6'-10'), and littoral (1'-4') habitat during periods of low, normal, and high water levels. The restoration is designed to provide spawning, nursery, foraging, and over-wintering habitat for sport fish including northern pike, smallmouth bass, and sunfish.

Native vegetation will be planted within and along the lakeshore that will provide aquatic and littoral/shoreline habitat for species. In addition, a native prairie plant buffer will be developed between the lake and Sturgeon Bay, to further filter runoff and to create additional terrestrial habitat.

## Catawissa Nature Preserve Design-Build Stream Restoration and Bank Stabilization Design



**Client:** Langhorne Borough, Bucks County, PA  
**Contact:** Scott Mitchell, Borough Manager  
114 E. Maple Avenue  
Langhorne Borough, PA 19047  
215.787.3788  
**Project Type:** Stream Restoration and Bank Stabilization Design  
**Location:** Montgomery County, PA  
**Timeline:** April 2017 - (Constructed in April 2018) - Ongoing Maintenance



Constructed stream at Catawissa just 30 days after installation with a sprouting black willow (*Salix nigra*) stake in the foreground.

www.appliedeco.com

The Catawissa Nature Preserve is a small woodlot in Langhorne Borough surrounded by residential development. Despite its small size, this site has tremendous value for residents in that it offers an escape to nature just blocks from the center of the Borough.

An additional value is that the site receives nearly half of the entire Borough's stormwater via a 30" pipe; thus, the site offers excellent stormwater management opportunities. The 36" culvert is the "headwaters" of an ephemeral stormwater tributary to the Neshaminy Creek locally referred to as Catawissa Creek.

Due to increased development in the upper watershed coupled with the increasing trend of intense episodic rain events, this creek experiences flashy conditions and has suffered significant erosion. The streambanks have been down-cut more than seven feet deep along some reaches, resulting in a cascade of deleterious ecological effects (lowered water table, invasive plant colonization, reduction in water quality, loss of wildlife habitat, etc.).

AES was engaged to design, permit, and construct a solution. Our ecologists and stream designers quickly assessed the site and produced a design that includes:

- Raising the stream bed to restore the hydrology and reconnect the floodplain to the stream;
- Stabilizing the streambanks to withstand increased stormwater flows without failure;
- Creating in-stream critical habitat for benthic macroinvertebrates and stream-associated amphibians;
- Removing invasive plant species and restoring various forest strata with native trees, shrubs, wildflowers, and grasses that are historically relevant;
- Creating a new ADA trail network that includes interpretive signage about the restoration with benches at key destinations.

The design was approved by the Bucks County Soils Conservation District, PADEP, & USEPA and was constructed in April and May 2018. The site has endured multiple significant rain events and has proven to be a successful and stable stream restoration. Ongoing habitat maintenance and trail work have allowed increased will improve wildlife habitat and user amenities, thus significantly increasing the site's functionality and importance for local bird, reptile/amphibian, and pollinator insect populations. A significant increase in dragonfly, damselfly, and frog populations has already been documented. These are natural control agents for mosquitoes!



## North Pond Parkland Master Planning Natural Landscapes as Recreational Spaces



In the late 1990s, the Lincoln Park Conservancy asked AES to design and construct the natural areas surrounding North Pond in the historic Lincoln Park near Lake Michigan in a northern Chicago neighborhood. The natural landscape has become a favorite destination for residents and visitors who enjoy the beauty of the wildflowers and the wildlife they attract.

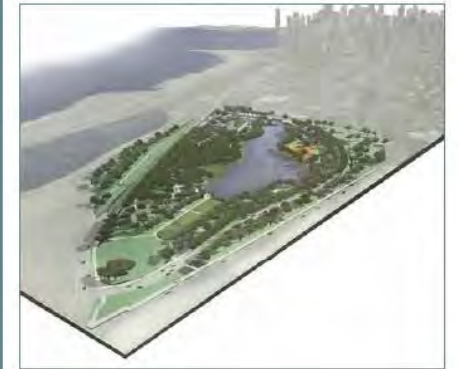
In 2012, AES was awarded a contract by the Conservancy to design the master plan for the entire North Pond site (43 acres). Our planning and design work was initiated in early August. A draft master plan was completed in January of 2013 and presented as part of the annual fund raising gala in March.

The goal of the master plan was to design a 21st century park, a new kind of park where nature provides working functions in the park. The park is envisioned as providing recreational needs as well as supplying ecosystem functions that benefit the City of Chicago.

**Client:** Lincoln Park Conservancy  
Susan Fargo, Board President  
773.883.7275  
sfargo@lincolnparkconservancy.org  
**Project Type:** Park Master Plan  
**Location:** Chicago, IL  
**Project Size:** 43 Acres  
**Timeline:** 2012 - 2013



www.appliedeco.com



Daniel Boone Homestead Master Plan



# Consultant Team

- Frens and Frens projects



Daniel Boone Homestead



Cornwall Iron Furnace

## PENNSYLVANIA HISTORICAL & MUSEUM COMMISSION HARRISBURG, PA

HISTORIC PRESERVATION CONSULTING SERVICES  
3 TERM CONTRACTS (1999-2014)

Contract highlights include:

- replacement of custom oak shingle roof at four buildings at Ephrata Cloister;
- restoration of the windows and roof at Cornwall Iron Furnace;
- restoration of doors and windows at Conrad Weiser Homestead;
- restoration of the Morris Barn at the Highlands Historic Site; and
- restoration of log structures at Daniel Boone Homestead and Landis Valley Farm.

Additionally, managed an 80-firm design/build team as part of the \$6M contract with the Commonwealth.



## THOMPSON-NEELY HOUSE & FARMSTEAD WASHINGTON CROSSING, PA

HISTORIC STRUCTURE REPORT COMPLETED 2003

The Thompson-Neely House is on the National Register of Historic Places and is a fine example of vernacular 18th-century architecture. Its expansion from a low, one-room dwelling to a two-story, multi-roomed farmhouse reflects the growth of colonial Pennsylvania's agricultural economy and the prosperity enjoyed by those who milled grain into flour for export.

Once the centerpiece of a working farm and milling complex, the Thompson-Neely House is surrounded by the numerous outbuildings supportive of 18th-century farm life.

The Historic Structure Report was commissioned by the Pennsylvania Historical and Museum Commission.



## HISTORIC THOMAS MILL WEST WHITELAND TOWNSHIP, PA

HISTORIC STRUCTURE REPORT COMPLETED 2007  
BUILDING ENVELOPE CONSERVATION COMPLETED MARCH 2008  
SECTION 106 COMPLIANCE



BEFORE: view from NE (above) & deterioration detail (below)



The Thomas Mill is a 1-1/2 story, timber-frame structure constructed on an embanked, uncoursed, rubble-stone masonry ground story. Based on historical documentation and dendrochronology, the building was constructed in 1744, by Richard Thomas II. Operated as a custom grist mill until c.1940, the property remained in the Thomas family until 1998. The Thomas Mill has several features that are entirely typical of an eighteenth century custom mill as well as other highly unusual timber framing details and exterior sidelapped oak shingle wall covering.

A historic structure report was completed for the mill and construction documents were prepared for the structural stabilization and exterior preservation of the mill.



Daniel Boone Homestead Master Plan



# Project Schedule

Meeting Title	Meeting Date	Meeting Time
Committee Meeting #1	Tuesday, January 12	7PM-9PM
Committee Meeting #2	Thursday, February 25	2PM-4PM
<b>Public Meeting #1 - Programming / Brainstorm</b>	<b>Tuesday, March 9</b>	<b>7PM-9PM</b>
PHMC Meeting #1	Tuesday, April 20	TBD
Committee Meeting #3	Thursday, April 29	2PM-4PM
Public Meeting #2 - Initial Concepts	Thursday, May 27	7PM-9PM
Committee Meeting #4	Tuesday, June 29	2PM-4PM
Key Person Interviews (10)	Dates TBD	TBD
Web Based Survey - write and administer	April 1 through September 1	online
Wiki - Mapping interactive community mapping	April 1 through September 1	online
Public Meeting #3 Draft Plan - BOS Meeting	Monday, September 27	7PM-9PM
PHMC Meeting #2	Thursday, October 7	TBD
Committee Meeting #5	Tuesday, November 16	2PM-4PM
Public Meeting #4 - Final Plan	Tuesday, November 30	7PM-9PM





# Scope of Work

- Public Participation
- Background Data Collection
- Site Information and Analysis
  - AES Scope of Ecological Services
    - Review Secondary Data
    - Conduct a robust natural resource inventory to support myriad planning and design initiatives
    - Ecological Recommendations
    - Design Support
    - Participation in Meetings and Educational Opportunities
    - Project Management and Agency Coordination
  - Man-Made Infrastructure
- Activities and Facilities Analysis
- Needs Assessment
- Design Process
- Cost Estimates
- Maintenance, Operating Costs and Revenue
- Security Analysis
- Deliverables – Master Plan Reports, Plans, Executive Summaries, etc.





# Demographics

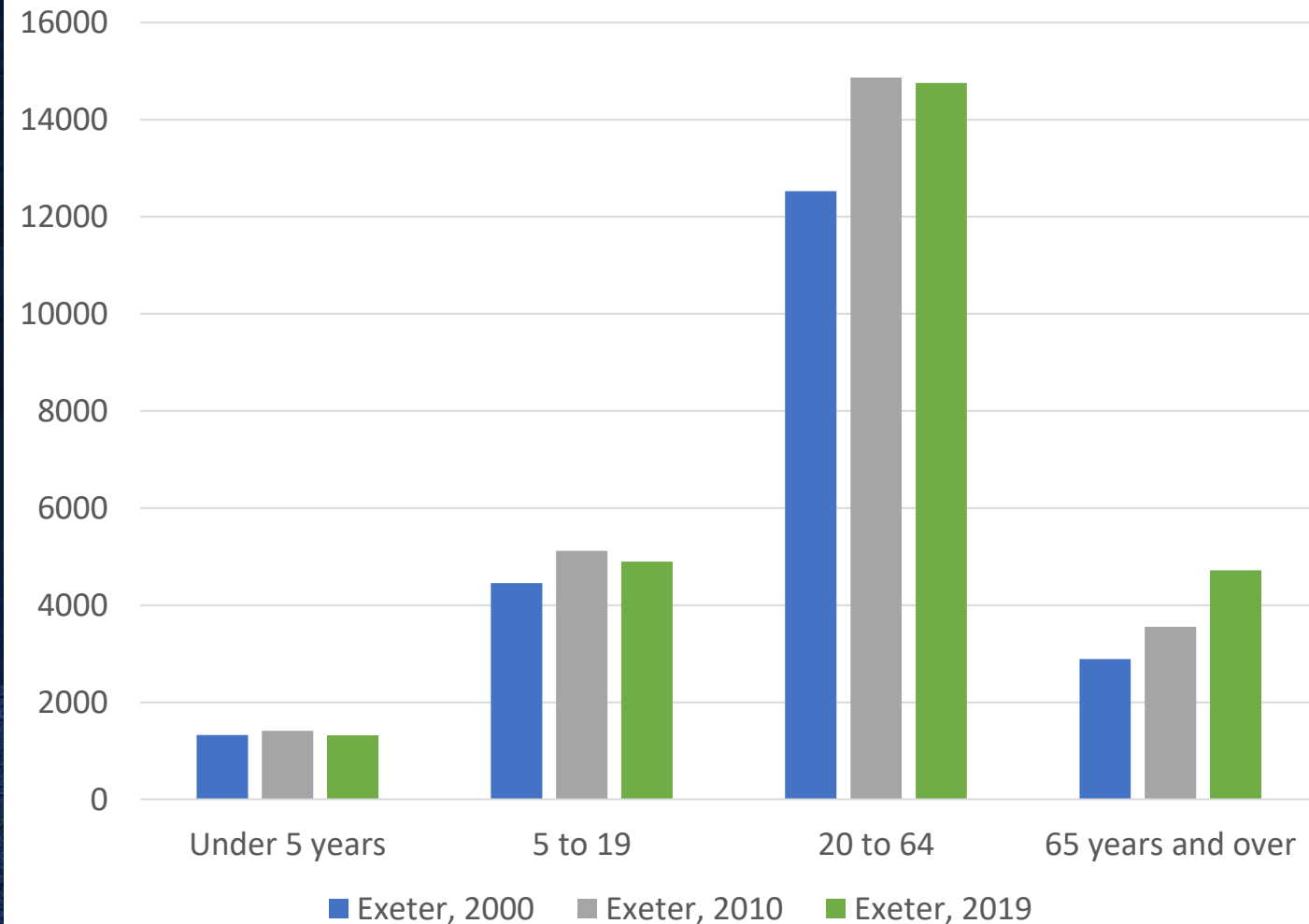
## Exeter Township Population Change by Age

- Overall increase in population
- Slight decrease in population for ages under 65 years

	Exeter, 2000	Exeter, 2010	% change
Under 5 years	1,324	1,411	6.6%
5 to 19	4,453	5,119	15.0%
20 to 64	12,523	14,865	18.7%
65 years and over	2,887	3,556	23.2%
<b>total</b>	<b>21,187</b>	<b>24,951</b>	<b>17.8%</b>

	Exeter, 2010	Exeter, 2019	% change
Under 5 years	1,411	1,319	-6.5%
5 to 19	5,119	4,896	-4.4%
20 to 64	14,865	14,755	-0.7%
65 years and over	3,556	4,719	32.7%
<b>total</b>	<b>24,951</b>	<b>25,689</b>	<b>3.0%</b>

Exeter Township Population by Age, 2000 vs 2010 vs 2019





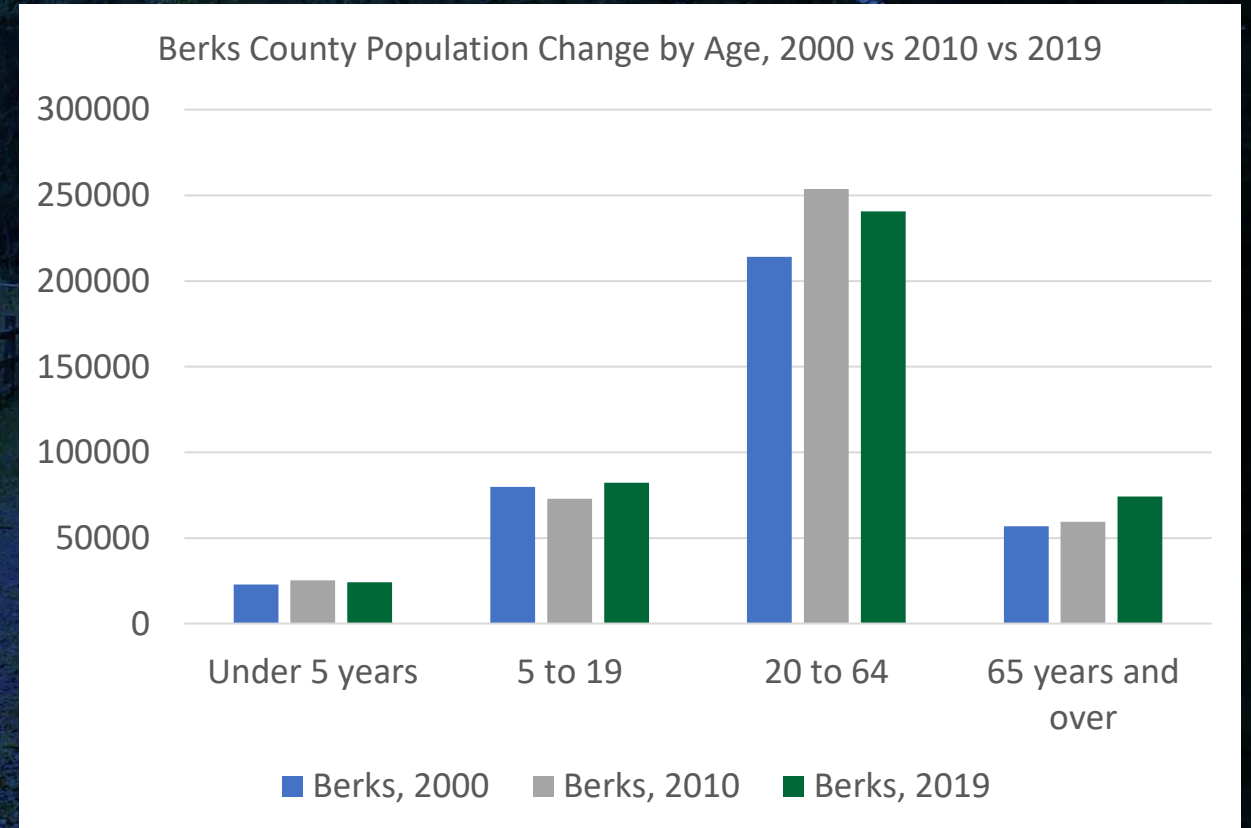
# Demographics

## Berks County Population Change by Age

- Overall increase in population
- Slight decrease in population for ages under 5 years, and ages 20 to 64

	Berks, 2000	Berks, 2010	% change
Under 5 years	22823	25288	10.8%
5 to 19	79826	72848	-8.7%
20 to 64	214,122	253,748	18.5%
65 years and over	56,867	59,558	4.7%
<b>total</b>	<b>373,638</b>	<b>411,442</b>	<b>10.1%</b>

	Berks, 2010	Berks, 2019	% change
Under 5 years	25288	24098	-4.7%
5 to 19	72848	82248	12.9%
20 to 64	253,748	240,605	-5.2%
65 years and over	59,558	74,213	24.6%
<b>total</b>	<b>411,442</b>	<b>421,164</b>	<b>2.4%</b>





# Demographics

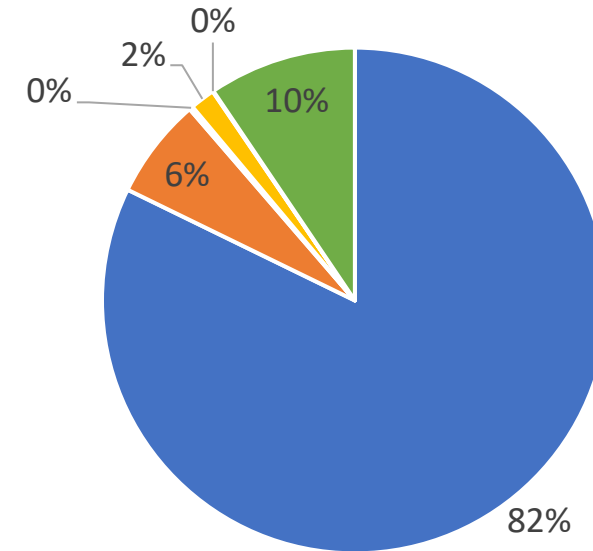
## Berks County and Exeter Township Race and Ethnicity

- Overall increase in racial minorities in the past decade, except American Indian in Berks County

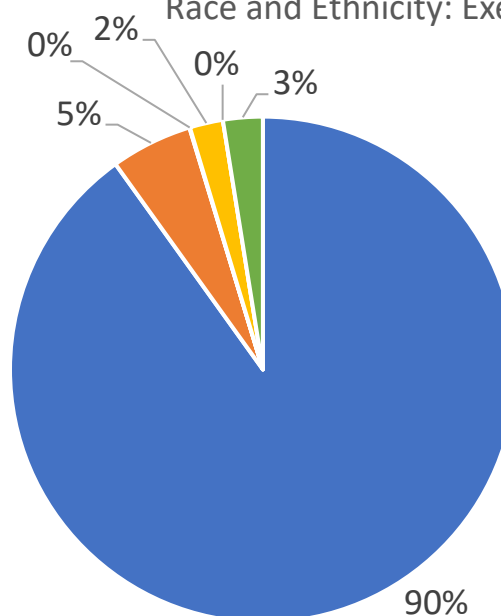
	Berks, 2010	Berks, 2019	% change
White	342,148	338,473	-1.1%
Black or African American	20,143	26,533	31.7%
American Indian and Alaska Native	1,285	961	-25.2%
Asian	5,385	6,574	22.1%
Native Hawaiian and Other Pacific Islander	128	208	62.5%
other race	42,353	38,929	-8.1%

	Exeter, 2010	Exeter, 2019	% change
White	23,166	22,724	-1.9%
Black or African American	1,056	1,315	24.5%
American Indian and Alaska Native	0	8	100.0%
Asian	360	537	49.2%
Native Hawaiian and Other Pacific Islander	0	0	0.0%
other race	146	639	337.7%

Race and Ethnicity: Berks, 2019



Race and Ethnicity: Exeter, 2019





# Demographics

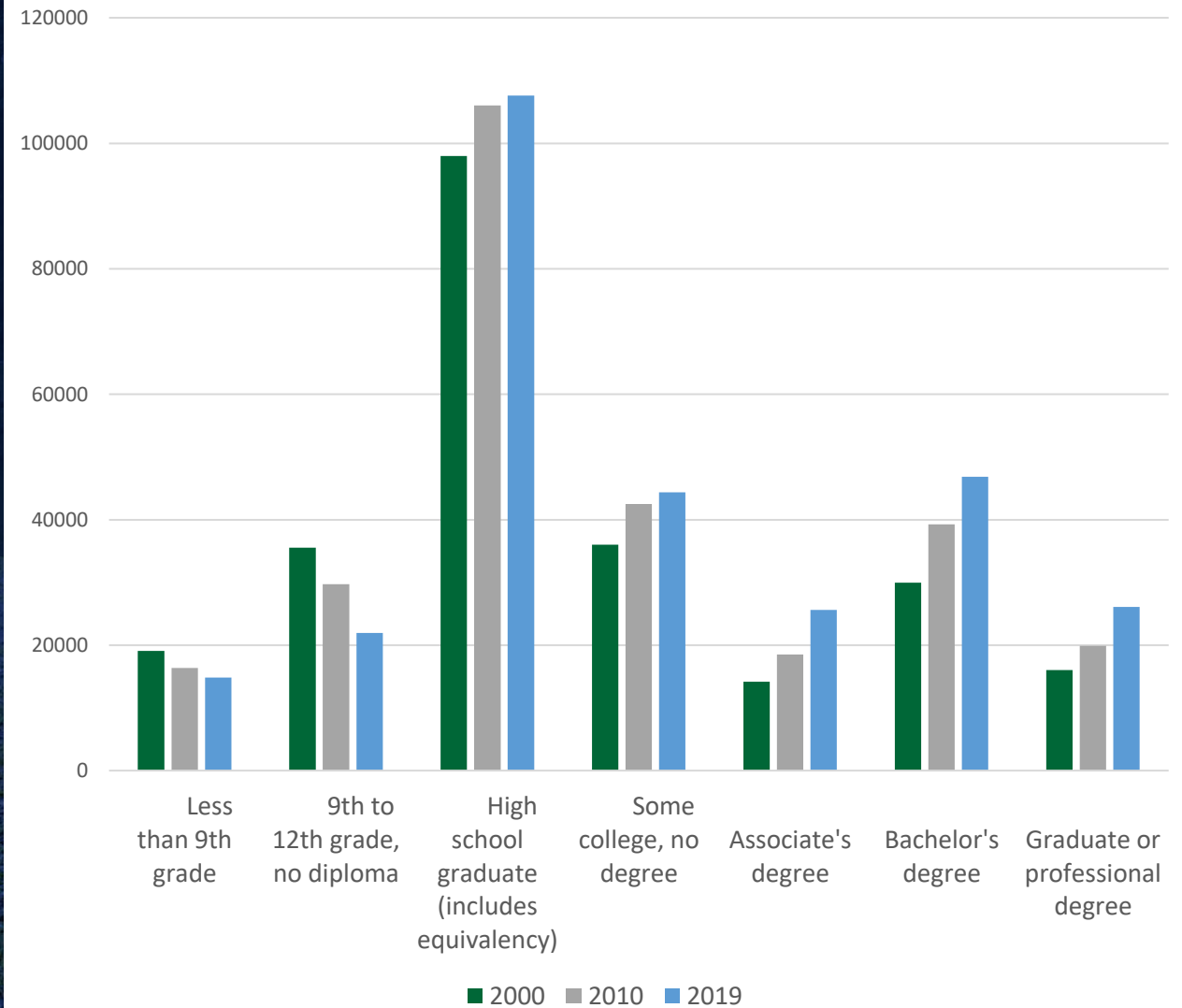
## Berks County Educational Attainment (25+ years)

- Highest increase in associate degrees and graduate degrees
- Decrease in high school dropouts

Educational Attainment: population 25+ years	2000	2010	% change
<i>Total population</i>	373,638	411,442	10.1%
Less than 9th grade	19103	16355	-14.4%
9th to 12th grade, no diploma	35548	29712	-16.4%
High school graduate (includes equivalency)	97979	106035	8.2%
Some college, no degree	36048	42523	18.0%
Associate's degree	14175	18536	30.8%
Bachelor's degree	29954	39252	31.0%
Graduate or professional degree	16057	19899	23.9%

Educational Attainment: population 25+ years	2010	2019	% change
<i>Total population</i>	411,442	421,164	2.4%
Less than 9th grade	16355	14828	-9.3%
9th to 12th grade, no diploma	29712	21972	-26.0%
High school graduate (includes equivalency)	106035	107603	1.5%
Some college, no degree	42523	44390	4.4%
Associate's degree	18536	25650	38.4%
Bachelor's degree	39252	46869	19.4%
Graduate or professional degree	19899	26113	31.2%

Educational Attainment, Berks County: 2000 vs 2010 vs 2019





# Demographics

## Exeter Township Educational Attainment (25+ years)

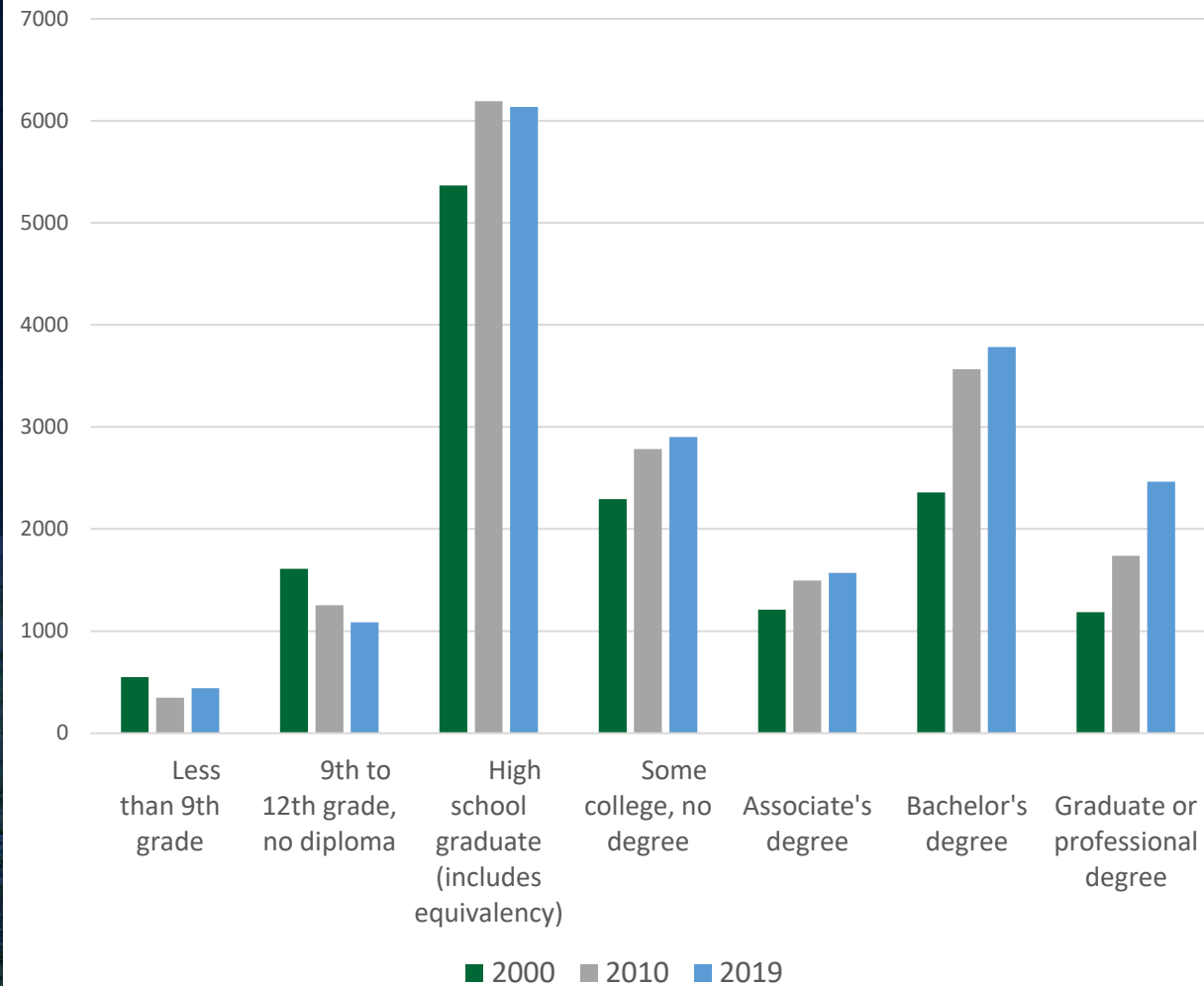
- Highest increase in graduate degrees
- Decrease in high school dropouts

Educational Attainment: population 25+ years	2000	2010	% change
<i>Total population</i>	21187	24951	17.8%
Less than 9th grade	549	348	-36.6%
9th to 12th grade, no diploma	1610	1252	-22.2%
High school graduate (includes equivalency)	5367	6192	15.4%
Some college, no degree	2292	2783	21.4%
Associate's degree	1210	1496	23.6%
Bachelor's degree	2359	3566	51.2%
Graduate or professional degree	1185	1739	46.8%

Educational Attainment: population 25+ years	2010	2019	% change
<i>Total population</i>	24951	25689	3.0%
Less than 9th grade	348	441	26.7%
9th to 12th grade, no diploma	1252	1085	-13.3%
High school graduate (includes equivalency)	6192	6138	-0.9%
Some college, no degree	2783	2901	4.2%
Associate's degree	1496	1570	4.9%
Bachelor's degree	3566	3784	6.1%
Graduate or professional degree	1739	2465	41.7%

Educational Attainment, Exeter Township: 2000 vs 2010 vs 2019

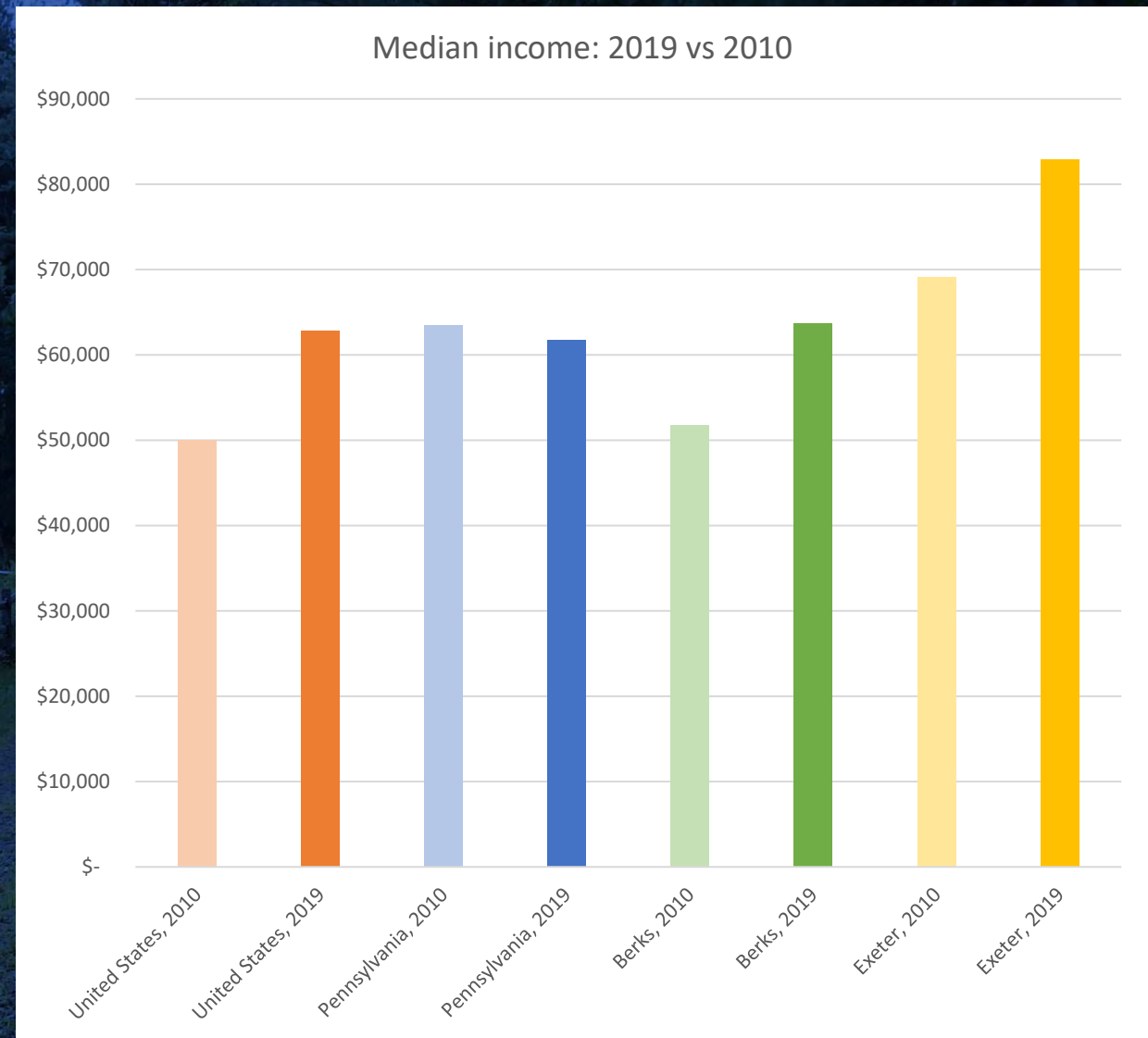




# Demographics

## Median Household Income Comparison (2010 vs 2019)

- Exeter Township has a higher median household income than the county, state, and country.



	United States, 2010	United States, 2019	Pennsylvania, 2010	Pennsylvania, 2019	Berks, 2010	Berks, 2019	Exeter, 2010	Exeter, 2019
Median income	\$ 50,046	\$ 62,843	\$ 63,463	\$ 61,744	\$ 51,759	\$ 63,728	\$ 69,093	\$ 82,889

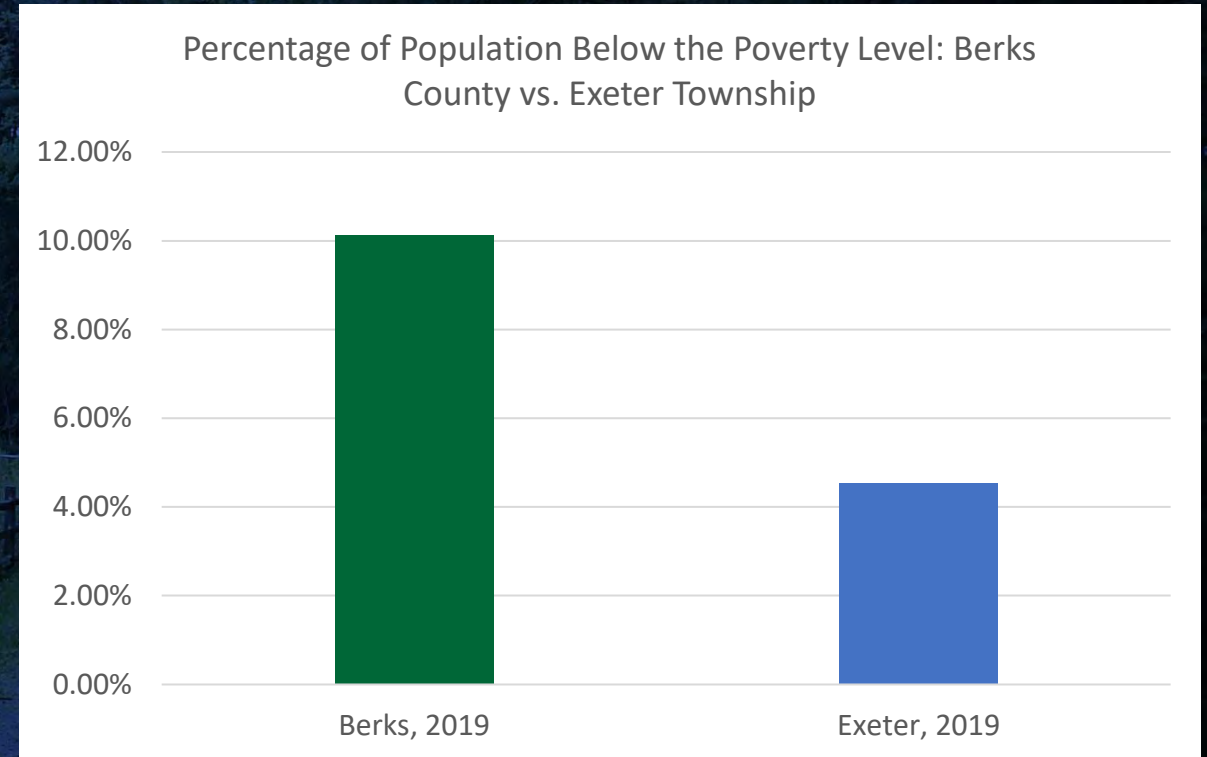


# Demographics

## Berks County and Exeter Township Population below poverty level

- Exeter Township has a lower percentage of the population below the poverty level than Berks County

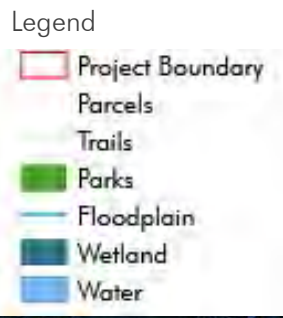
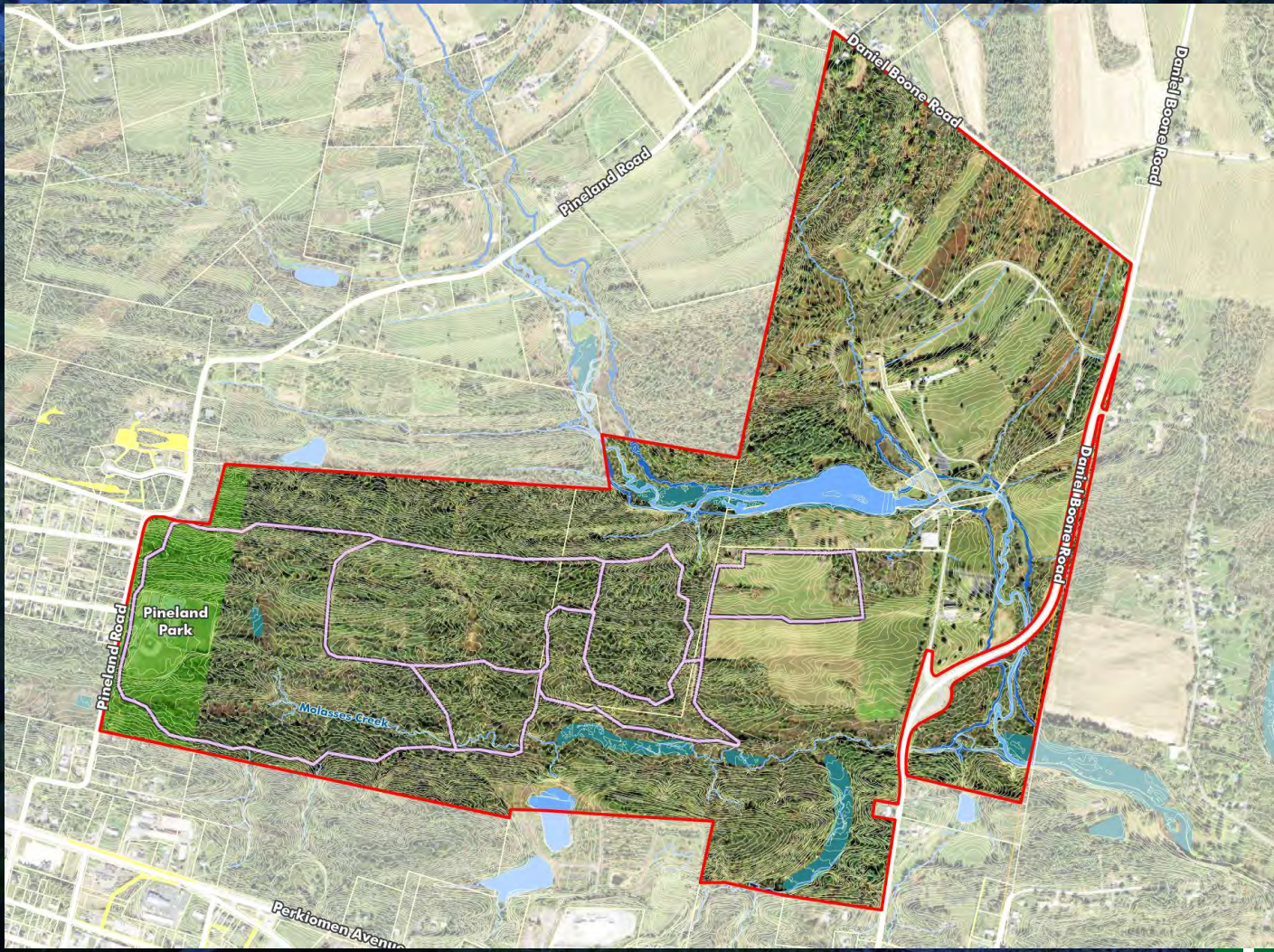
Poverty Rates	Berks, 2019	Exeter, 2019
below poverty level	41338	1150
percentage	10.14%	4.55%
Population for whom poverty is determined	407,582	25,300
Total Population	421,164	25,689





# Existing Data

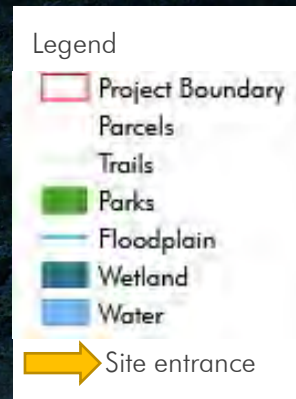
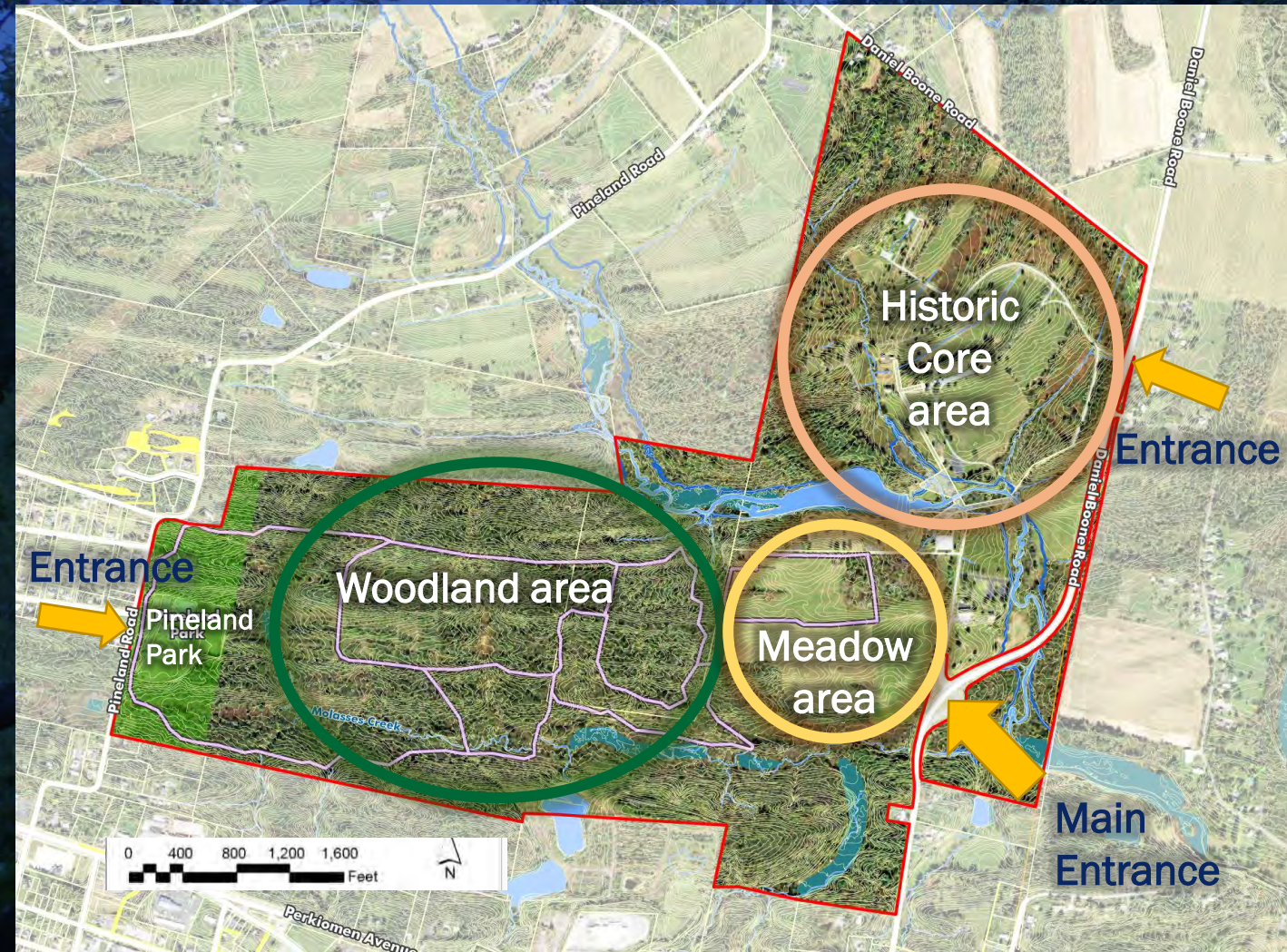
## Project Site





# Existing Data

## Site areas

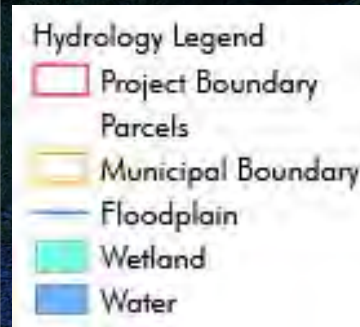
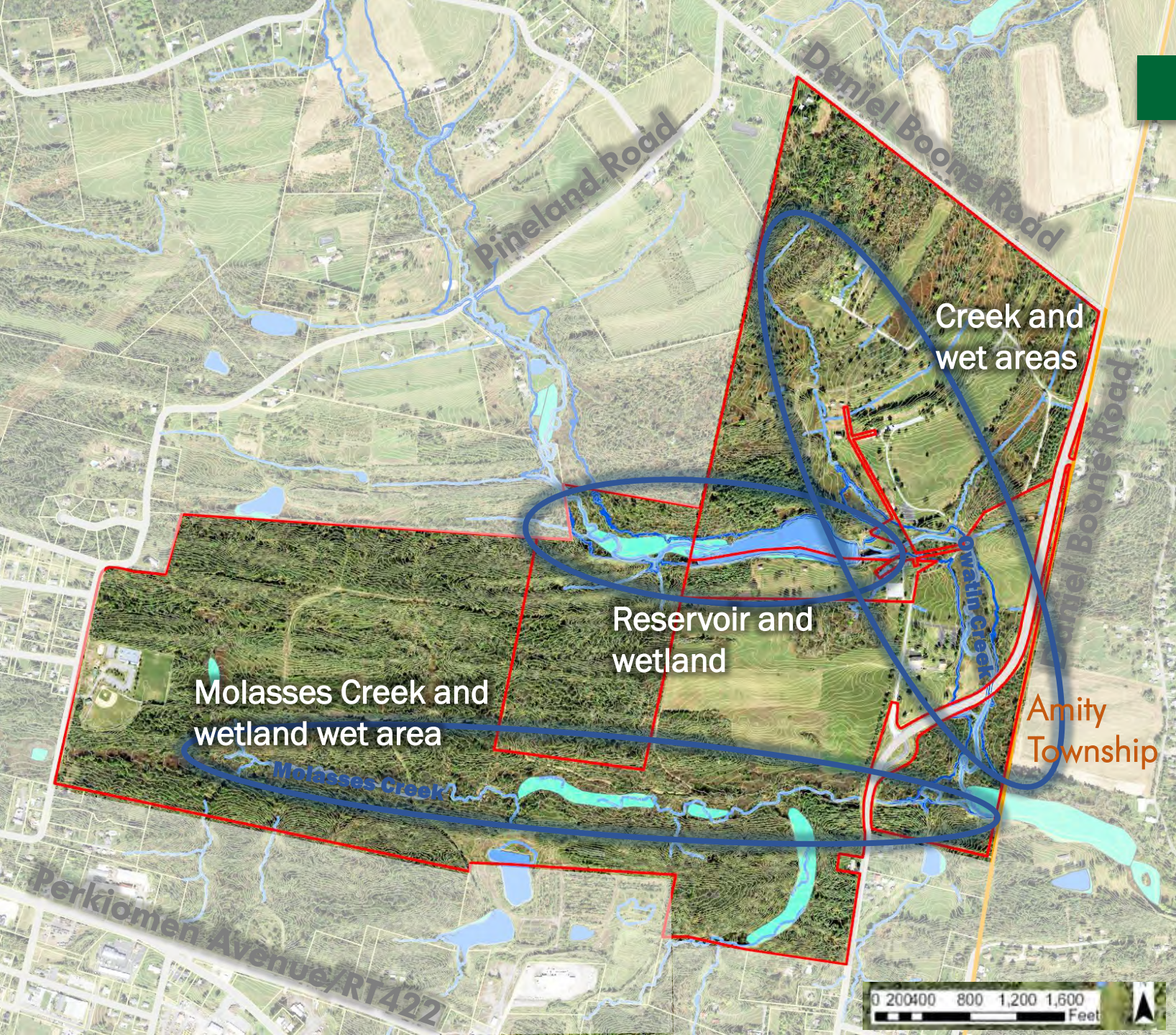




## Existing Data - Hydrology

Site is divided into 3 different hydrology areas

- Molasses Creek and wetland area – wet and mucky soils
- Reservoir and wetland area – open water views and woodland streams
- Owatin Creek, smaller streams

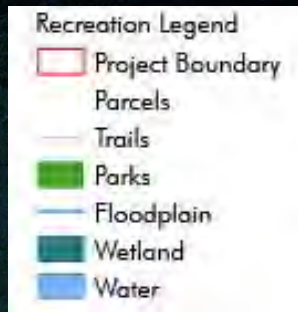
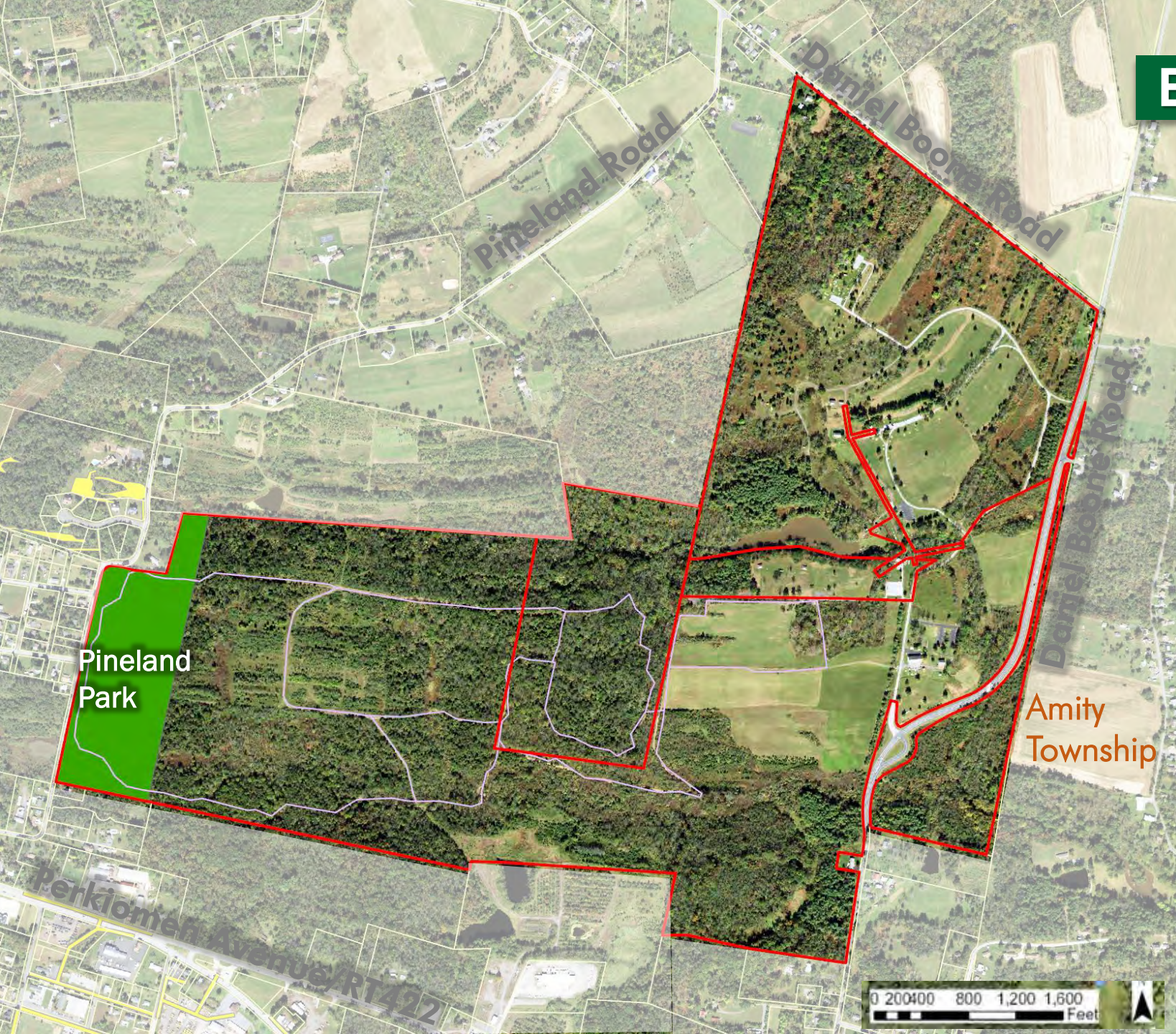




# Existing Data - Recreation

## Existing Trails

- Woodland, meadow, and historic core trails
- Pineland Park
- No active existing trail connections between Pineland Park and Homestead site.





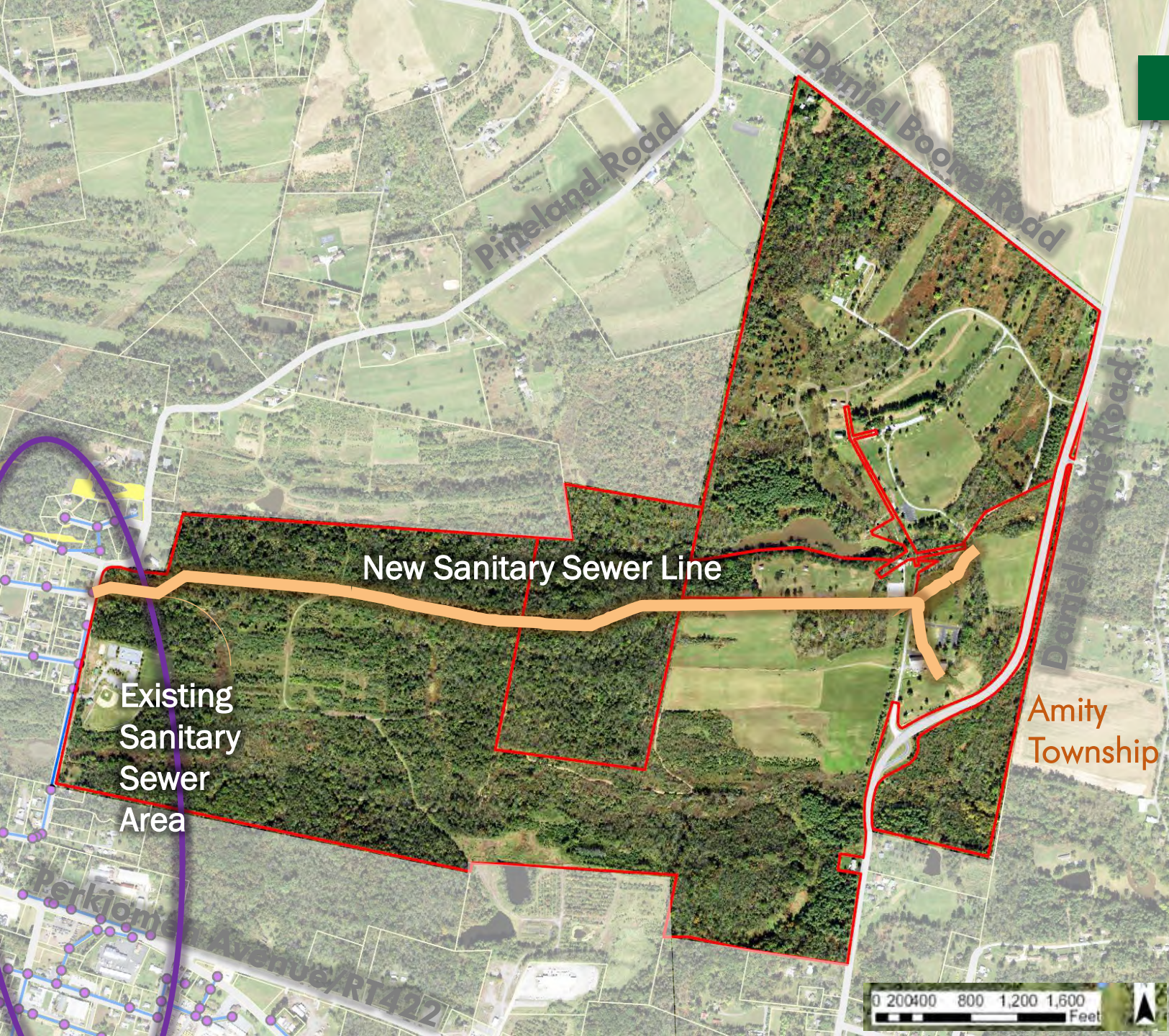
# Existing Data - Utilities

## Network of existing sanitary utilities west of site

- Woodland, meadow, and historic core trails
- Pineland Park

## New Sanitary Sewer Line

- currently under construction



### Utilities Legend

- Project Boundary
- Parcels
- Easement
- Sanitary Sewer Line
- Sanitary Manholes
- Fire Hydrants
- Future Sanitary Sewer Line



# Existing Data - Zoning

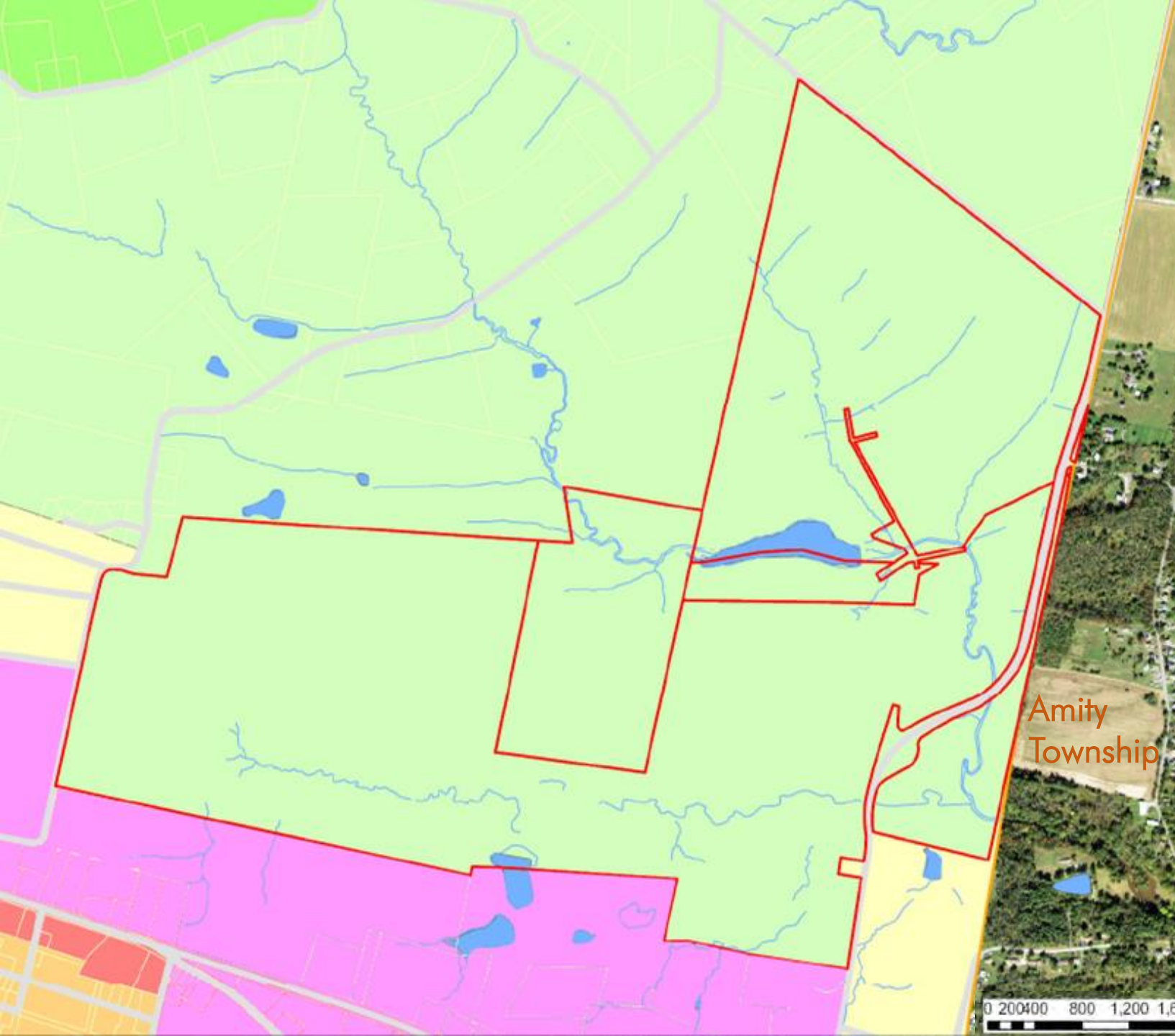
**Site:** Agricultural Preservation

**Surrounded by:**

- Suburban Residential
- Flex Industrial
- Agricultural Preservation

**Amity Zoning adjacent to site:**

- Low Density Residential
- Rural Conservation

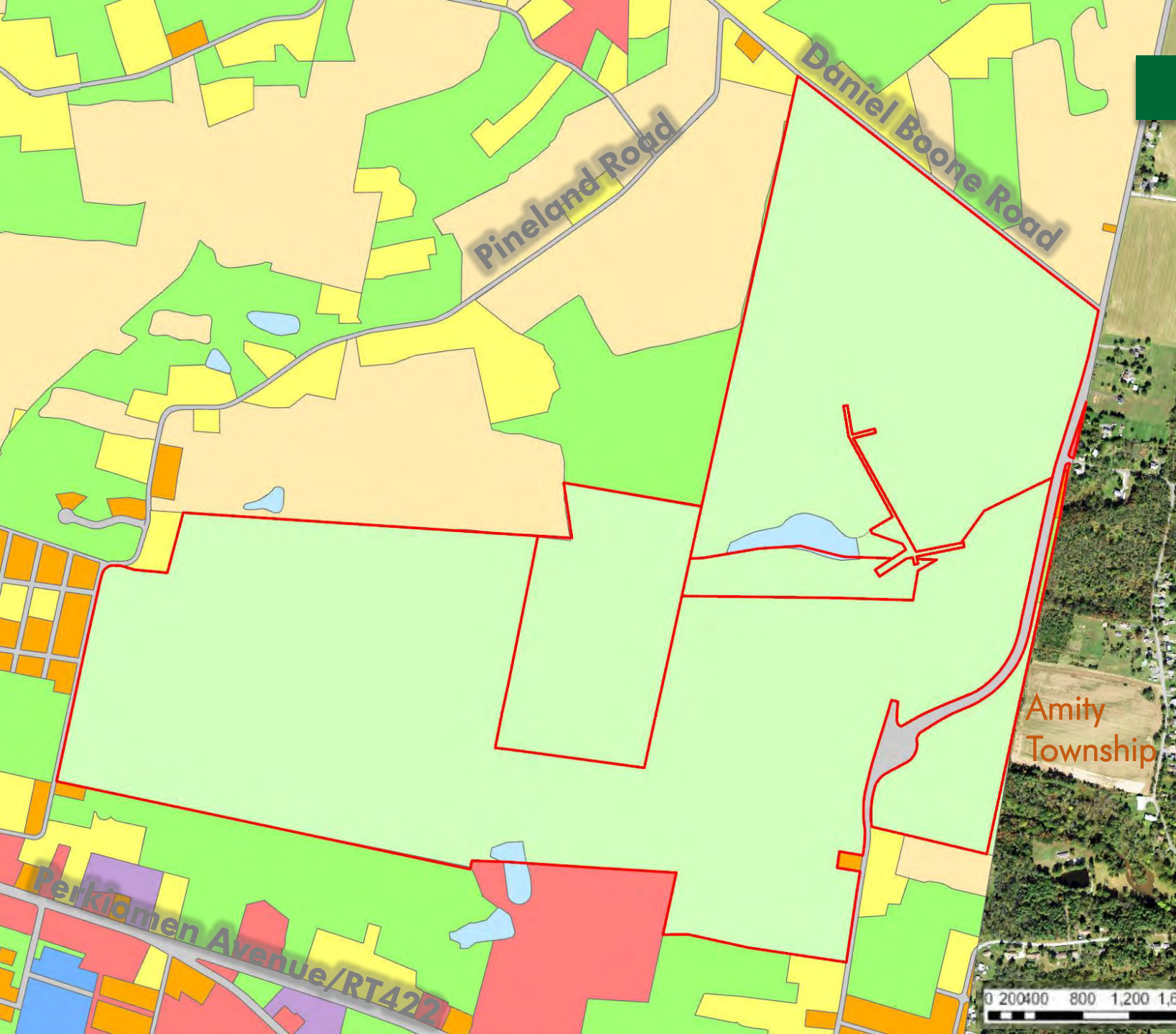


## Zoning Legend

- Project Boundary
- Parcels
- Municipal Boundary
- Agricultural Preservation
- Rural
- Flex Industrial
- General Industrial
- Highway Commercial
- Suburban Residential 0
- Suburban Residential 2



# Existing Data – Land Use



**Site:** Recreation

**Surrounded by:**

- Open Space
- Agriculture
- Commercial
- High Density Residential
- Low Density Residential

**Amity Land Use adjacent to site:**

- Agriculture
- Low Density Residential
- Close to Monocacy Hill

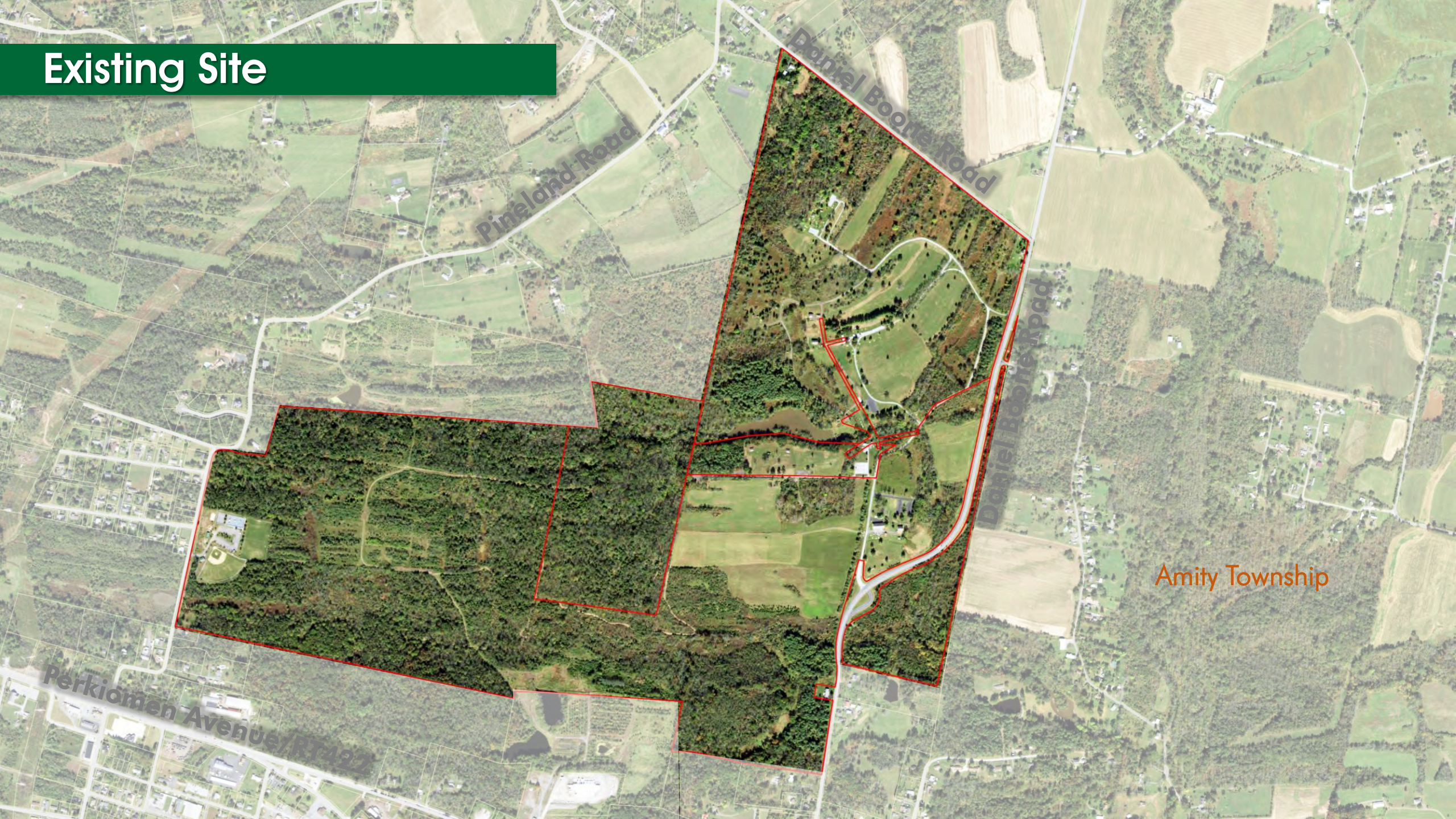
Land Use Legend	
	Project Boundary
	Agriculture
	Commercial
	Industrial
	Institutional
	Open Space
	Recreation
	High Density Residential
	Low Density Residential
	Transportation
	Water

Daniel Boone Homestead Master Plan

0 200 400 800 1,200 1,600 Feet



# Existing Site



Pineland Road

Daniel Boone Road

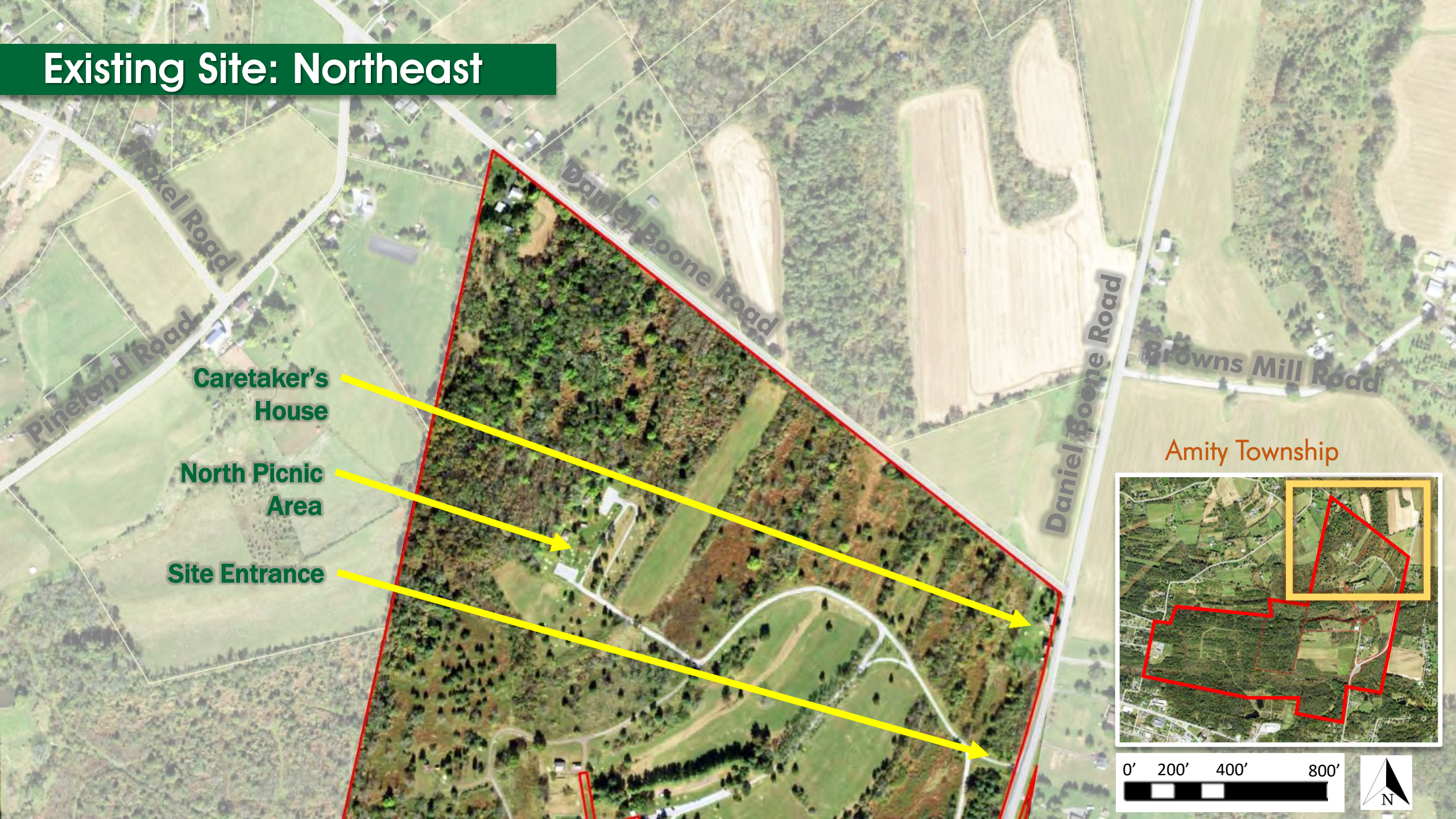
Daniel Boone Road

Perkiomen Avenue/RT 422

Amity Township



# Existing Site: Northeast



Tipoxel Road  
Pipeland Road

Caretaker's House

North Picnic Area

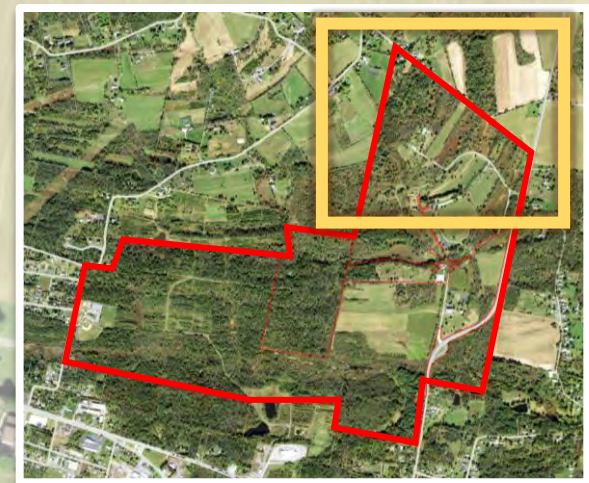
Site Entrance

Daniel Boone Road

Daniel Boone Road

Browns Mill Road

Amity Township





# Existing Site: Historic Core

Barn Threshing Floor

Homestead Barn,  
Blacksmith Shop

Bertolet House,  
Bertolet Bakehouse /  
Smokehouse

Boone House, Smokehouse

Visitor Center

DeTurk Cemetery

Daniel Boone Lake

Bertolet  
Sawmill

Amity Township

Craft Shed

Wayside Lodge

Daniel Boone Road





# Existing Site: Southeast Entrance

South Picnic Area

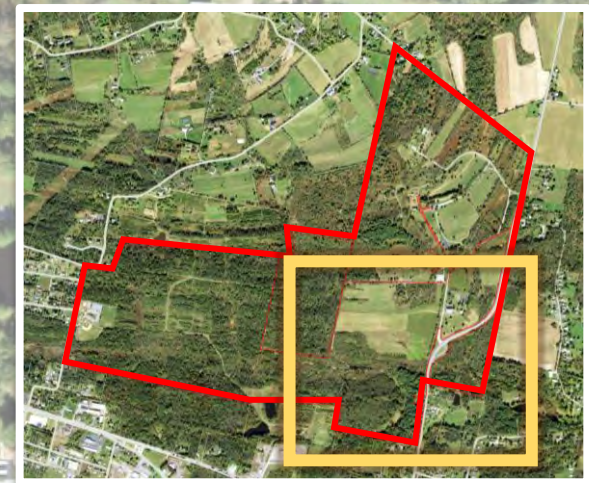
DeTurk Education Center

Maintenance Barn

Amity Township

Main Entrance

Daniel Boone Road



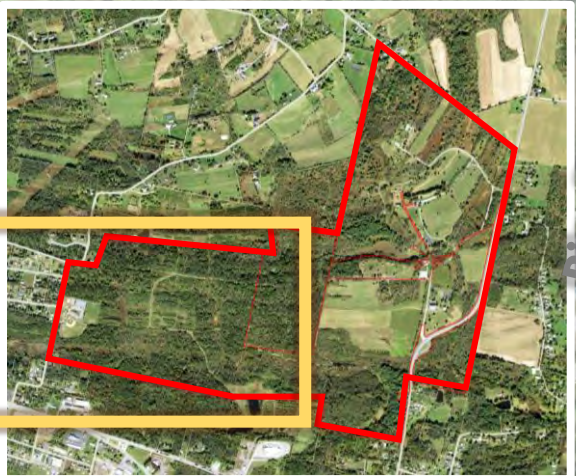


# Existing Site: Pineland Park

- Skate Park
- Basketball
- Playground, Pavilion
- Parking Area
- Multi-Use field
- Baseball field



Pineland Road

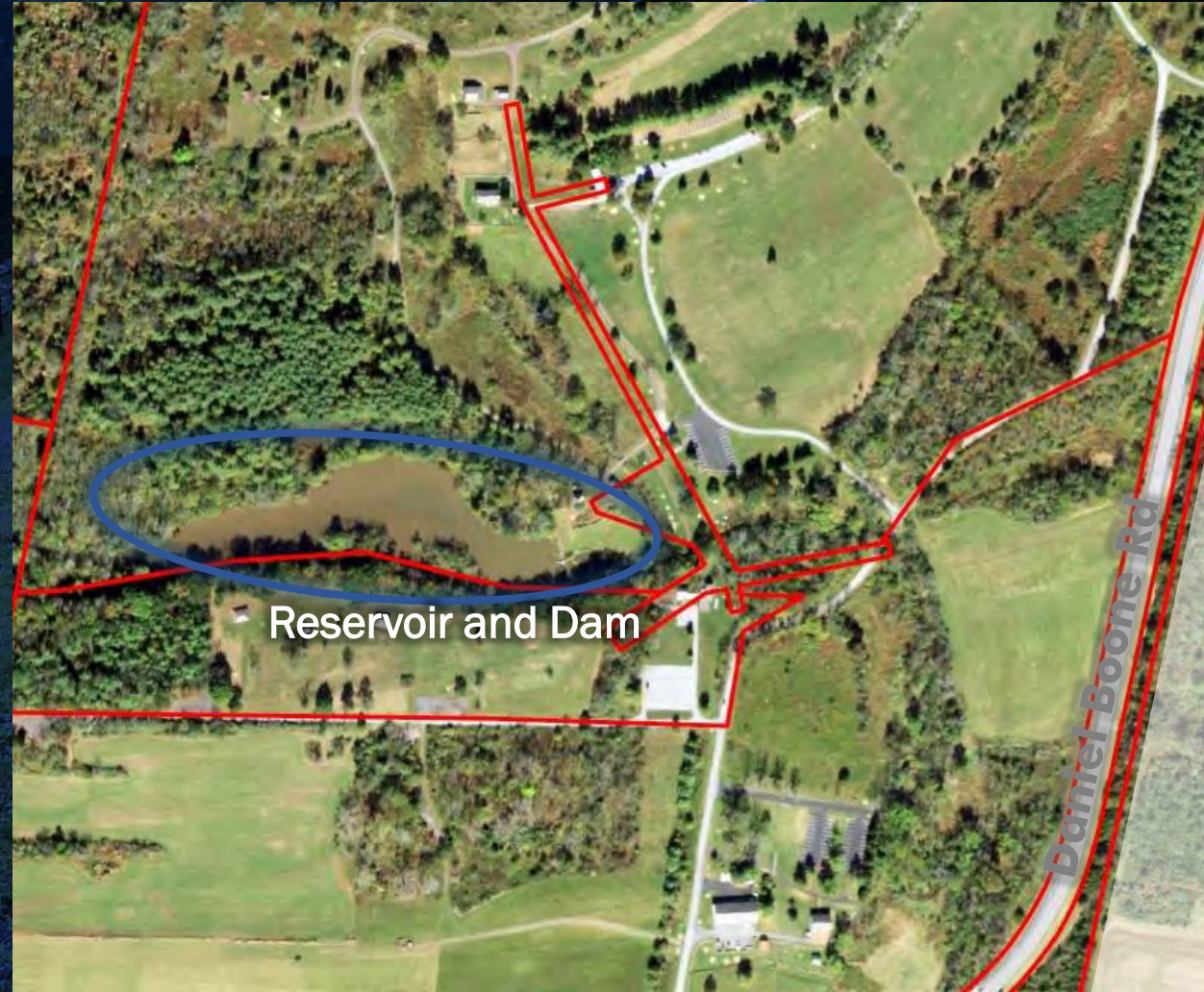




# Future DGS Project

The Pennsylvania Department of General Services (DGS) project at Daniel Boone Homestead

- Dredge reservoir
- Address issues with the reservoir dam
- Earliest projected completion – late 2023





# Natural Resource Inventory

## METHODS

- Unlimited-distance, Single-observer Point Count for Birds (permanent plots)
- Vegetation Community Mapping
  - Natural Ecosystems Characterization
  - Invasive plants
  - RTE Species Habitat/Presence
- Rapid Ecosystem Assessment
- Stream, Wetlands, and Fisheries Assessment
- Threatened and Endangered Animal Species Habitat Assessment
- Forestry Cruising
- Passive Insect Transects
- Timed Meanders for Botanical Diversity
- Deer Spotlight and Camera Trap Surveys



\*No official sampling events have occurred for this site yet





# Natural Resource Inventory

## A FEW INITIAL OBSERVATIONS

- Significant Raptor Presence
- Robust Herpetofaunal Habitat/Potential
- Palustrine Emergent and PFO Wetlands
- Many Natural Springs
- 24 bird species counted during passive observation – great habitat diversity!
- White Oak from the 1700's





# Natural Resource Inventory

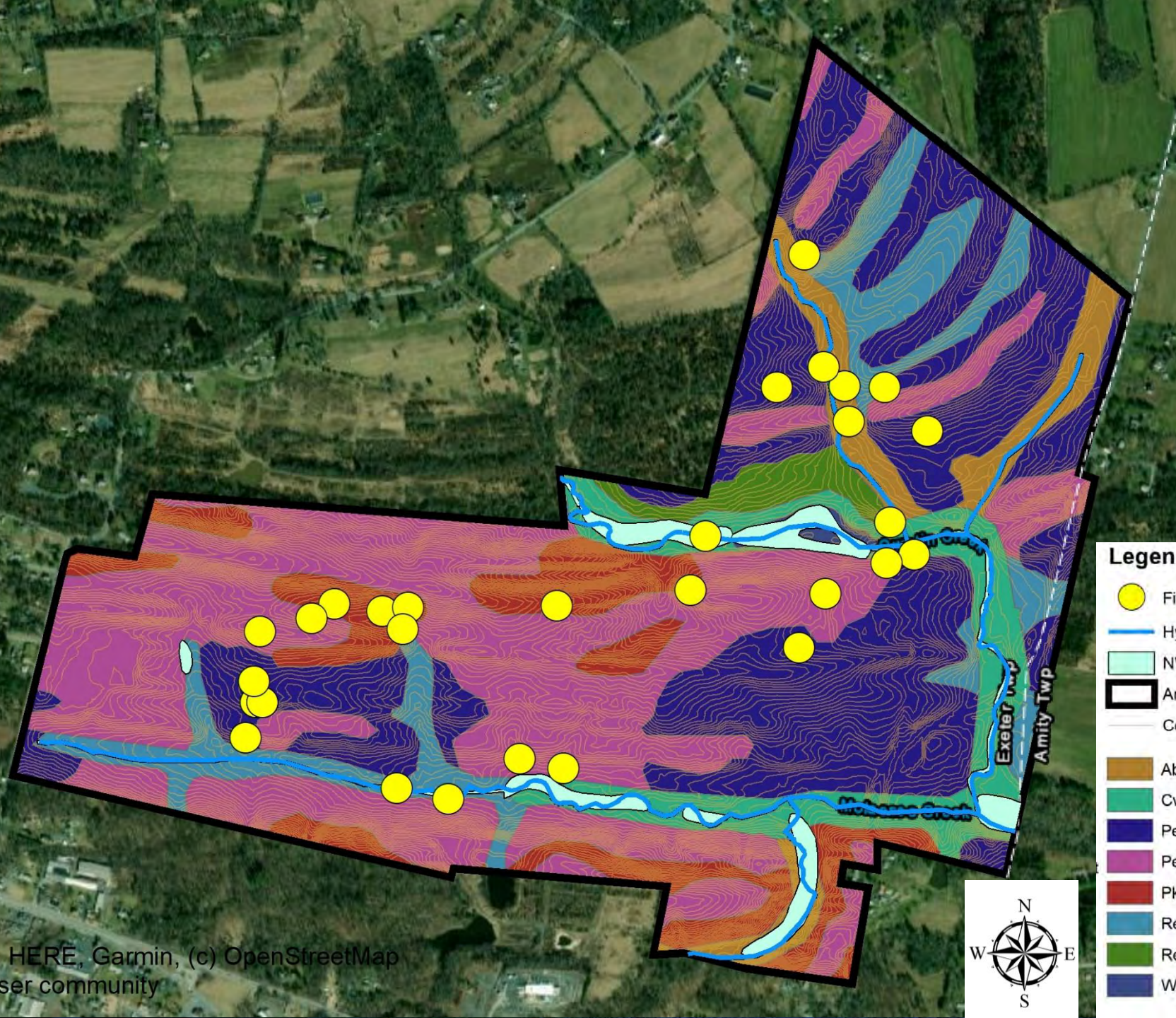
## Potential

- Savanna restoration to host more grassland and savanna species (American pipits during first visit!)
- Wetland and riparian buffer restoration to increase water quality, reduce erosion
- Removal of invasive plants and thinning of non-native canopy to encourage a diversity of structure and species
- Synthesize historic and ecological value to best steward the land and provide a public experience
- Amazing wetland mosaics





# Natural Resource Inventory - Soils



## Legend

- Field Notes
- Hydrology
- NWI
- Area Of Interest
- Contours (2ft)
- AbA, Abbottstown silt loam, 0 to 3 percent slopes, Hydric - Inclusions
- CwA, Croton silt loam, occasionally ponded, 0 to 3 percent slopes, Hydric - Yes
- PeB, Penn channery silt loam, 3 to 8 percent slopes, Hydric - No
- PeC, Penn channery silt loam, 8 to 15 percent slopes, Hydric - Inclusions
- PkD, Penn-Klinesville channery silt loams, 15 to 25 percent slopes, Hydric - Inclusions
- ReA, Readington silt loam, 0 to 3 percent slopes, Hydric - Inclusions
- ReB, Readington silt loam, 3 to 8 percent slopes, Hydric - No
- W, Water, Hydric





# Historic Core Structure

## BUILDING / STRUCTURE ASSESSMENT

### High-level assessment of 14 structures

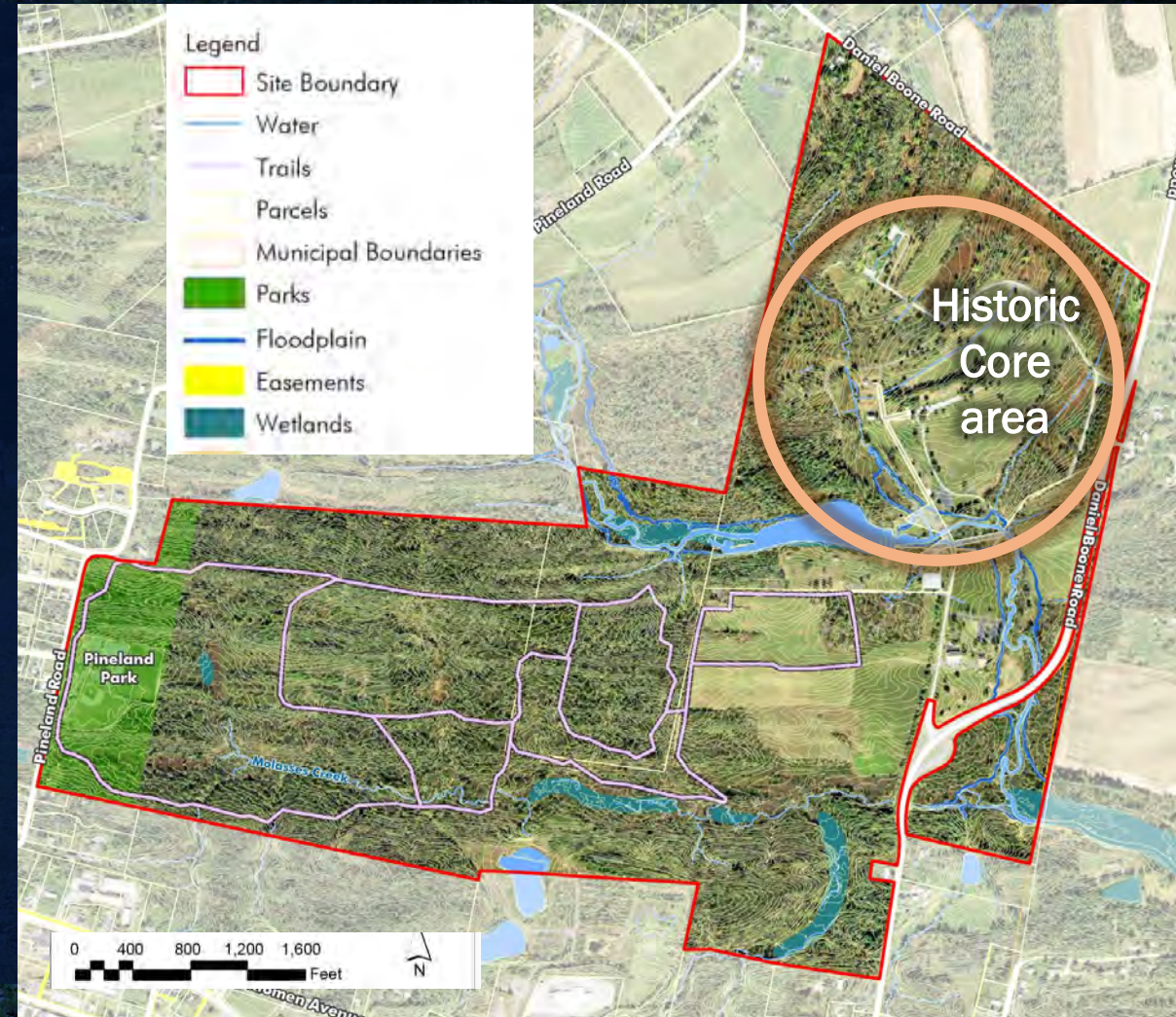
- (7) 18th century structures in the Historic Core
- (7) 19-20th century structures outside the Historic Core

### Evaluate Structures for

- Overall condition
- Significance
- Utility
- ADA Upgrades
- Building Code Upgrades
- Recommended preservation treatments

## STRUCTURES

- 14 structures total
- 7 are 18th century
- 4 of those 7 were moved to the site in the mid 20th c.

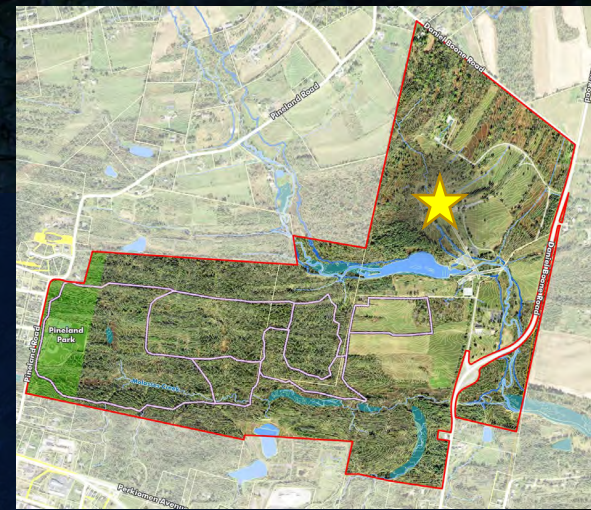




# Historic Core Structures

## HISTORIC CORE

- **BOONE HOUSE** – earliest log house structure – 1730
- **SMOKEHOUSE** – 18th c.
- **DETURK BARN / HOMESTEAD BARN** – part 18th c. **MOSTLY REBUILT**
- **BLACKSMITH SHOP** – 18th c structure, **MOVED** to site 1968
- **BERTOLET HOUSE (BERTOLET CABIN)** - 18th c structure, **MOVED** to site 1968
- **BERTOLET BAKEHOUSE / SMOKEHOUSE** – 18th c structure, **MOVED** to site 1968
- **BERTOLET SAWMILL** – oldest working water powered vertical blade sawmill in PA - **MOVED** to DB 1972



Daniel Boone House



Smokehouse



Restored DeTurk Barn and Blacksmith Shop



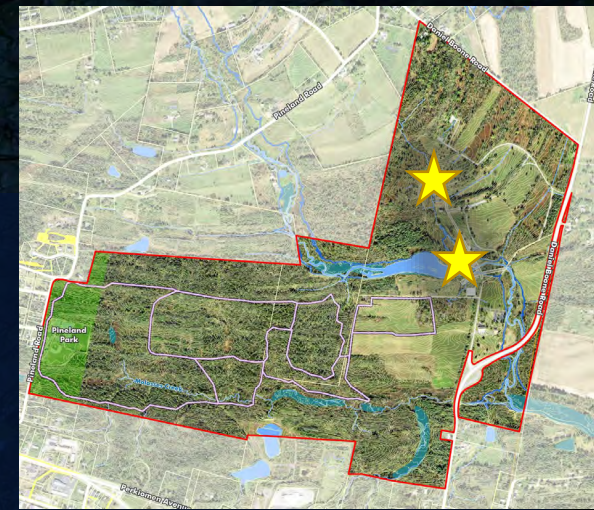
Daniel Boone Homestead Master Plan



# Historic Core Structures

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Bertolet House / Bertolet Bakehouse/Smokehouse



Sawmill

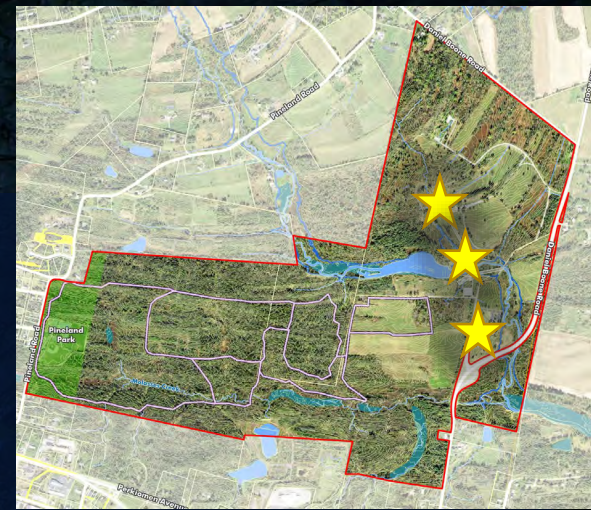




# Historic Core Structures

## OUTSIDE THE HISTORIC CORE

- VISITORS CENTER – mostly 20th c.
- WAYSIDE LODGE – c. 1940
- DETURK EDUCATIONAL CENTER – c. 1812
- MAINTENANCE BARN
- RESTROOM BUILDING – 20th c
- UTILITY BUILDING – 20th c
- RESIDENCES (?)



Visitors Center



Wayside Lodge



Maintenance Barn



Daniel Boone Homestead Master Plan



# Historic Core Structures

## OUTSIDE THE HISTORIC CORE

- VISITORS CENTER – mostly 20th c.
- WAYSIDE LODGE – c. 1940
- DETURK EDUCATIONAL CENTER – c. 1812
- MAINTENANCE BARN
- RESTROOM BUILDING – 20th c
- UTILITY BUILDING – 20th c
- RESIDENCES (?)



Restroom Building



Utility Building





# Historic Core Structures

## BUILDING / STRUCTURE ASSESSMENT

### High-level assessment of 14 structures

- (7) 18th century structures in the Historic Core
  - Anticipated use to remain unchanged
- (7) 19-20th century structures outside the Historic Core
  - rehabilitation may be considered

### Historic Core Assessments will focus on:

- Overall condition:
  - Exposed framing, windows, doors, finishes
- ADA Upgrades: where can accessibility be reasonably improved without comprising historic integrity?





# Historic Core Structures

## BUILDING / STRUCTURE ASSESSMENT

High-level assessment of 14 structures

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Exposed framing, windows, doors, finishes
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# Historic Core Structures

## BUILDING / STRUCTURE ASSESSMENT

High-level assessment of 14 structures

- (7) 18th century structures in the Historic Core
  - Anticipated use to remain unchanged
- (7) 19-20th century structures outside the Historic Core
  - rehabilitation may be considered

Assessments of Structures outside the Historic Core will focus on:

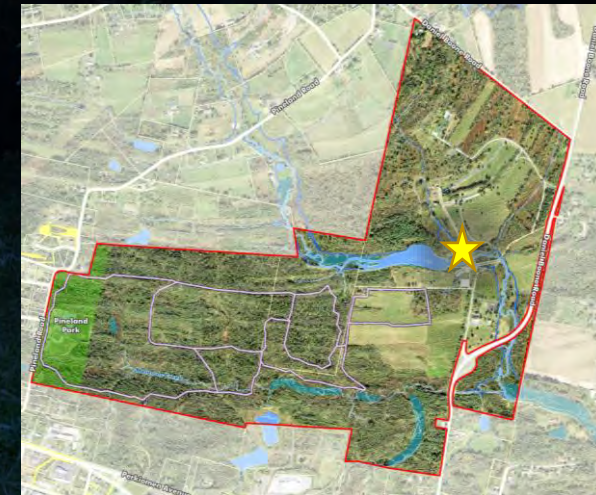
- Overall condition:
  - Windows, doors, finishes
- Building Code Compliance:
  - Restrooms, access
- Potential reuse / expansions / rehabilitation & order of magnitude cost estimates





# Site Reconnaissance – January 11

## Dam and Reservoir





# Site Reconnaissance – January 11

Trailer Parking, maintenance access and equestrian trail

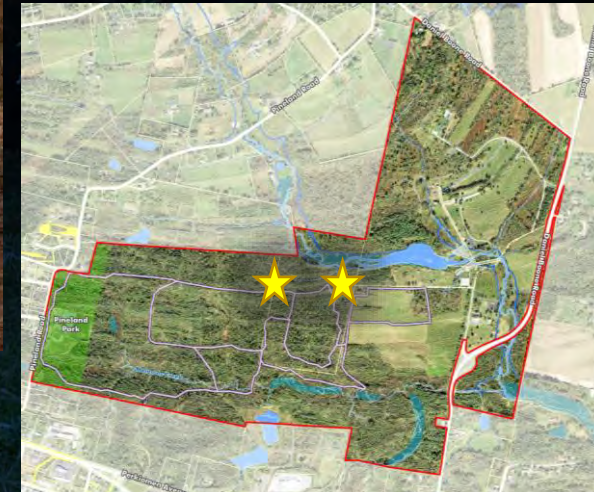


WELCOME  
TO THE  
BRIDLE TRAIL HEAD

Maintained by the  
Friends of the Daniel Boone Homestead  
for your enjoyment.

WARNING

You assume  
the risk of  
equine  
activities  
pursuant to  
Pennsylvania  
Law.



Daniel Boone Homestead Master Plan



# Site Reconnaissance – January 11

Woodland area trail, Samuel Boone House ruins





# Site Reconnaissance – January 11

Molasses Creek, creek bridge

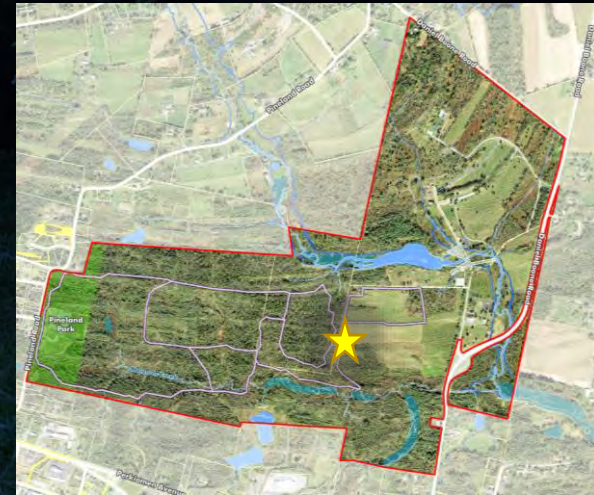


Daniel Boone Homestead Master Plan



# Site Reconnaissance – January 11

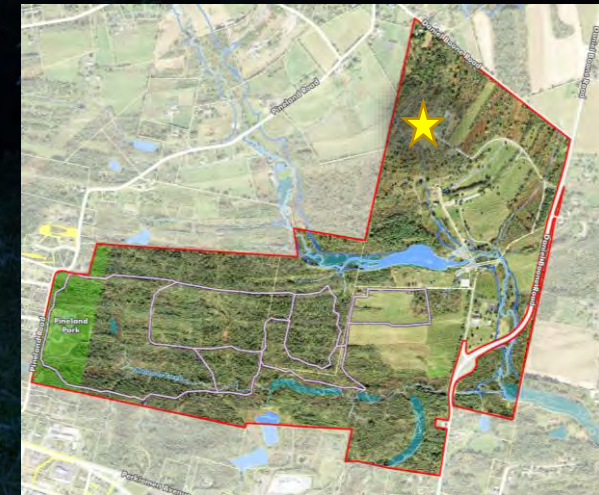
Central meadow





# Site Reconnaissance – January 11

## Northern Picnic Area





# Site Reconnaissance – January 11

## Pineland Park



There does not appear to be a direct connection between Pineland Park and the homestead.



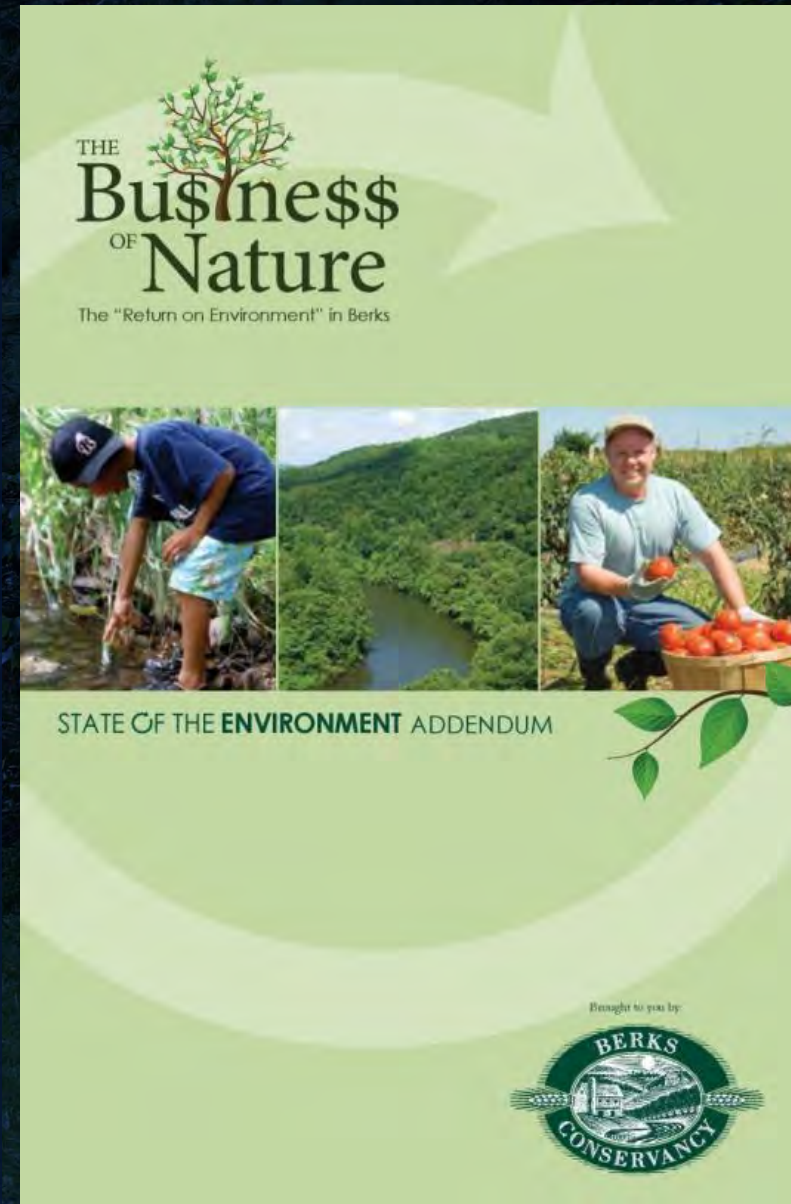
Daniel Boone Homestead Master Plan



# The Business of Nature

## The “Return on the Environment” in Berks – Sept 2015

“Access to open space, trails and park facilities are community assets that add to our overall quality of life.”



Daniel Boone Homestead Master Plan



# The Business of Nature

## The “Return on the Environment” in Berks – Sept 2015

**Nearly 336,000 people in Berks County participate in some form of outdoor activity – that is 82% of our population!**

This is based on the PA Department of Conservation and Natural Resources’ Outdoors Report on participation rates for the most popular recreational activities. With rising gasoline prices and volatile economic cycles, having nature available close to home becomes even more critical for people who want recreation and relaxation.

**\$47 million**

Camping contributes to the Berks economy annually.

22

**\$84 million**

Wildlife watching contributes to the Berks economy annually.

**\$63 million**

Biking contributes to the Berks economy annually.

“Where do you want to explore today?”



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# The Business of Nature

## The “Return on the Environment” in Berks – Sept 2015

### Plants and trees along streams provide \$77 million of flood control in Berks.

Riparian buffers (plants and trees along streams) and wetlands are natural systems that provide services in the form of flood protection, water treatment, pollination and fauna to the local economy. According to the SmartConservation™ Model, a monetary value can be placed on natural systems. The SmartConservation™ Model is a conservation planning tool for policy-makers and conservation practitioners to make educated decisions about how to prioritize conservation projects, thereby focusing conservation dollars for the maximum impact.

**\$13.00**

Restoring wetlands can return thirteen dollars in benefits for every 10 dollar invested.

**over \$3,000**

Headwaters & riparian areas provide per acre to the local economy each year in ecosystem services..

**\$0.00**

Cost to create your own riparian buffer along a stream – stop mowing and nature will do the rest!

“Is someone going to mow those weeds?”

Photo by Mike Roush.

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Daniel Boone Homestead Master Plan



# The Business of Nature

## The “Return on the Environment” in Berks – Sept 2015

**All of the above and more!  
Recreational resources alone  
create 6,000 jobs in Berks.**

According to data sets from the U.S. Bureau of Economic Analysis and one of the most standard economic modeling systems, IMPLAN, the number of jobs created from an industry can be determined from annual economic revenue. For example, if a new sporting goods store moved into Berks County with an estimated \$100 million worth of revenue, the number of jobs created can be determined by adding the direct jobs (all jobs created at the sporting goods store), indirect jobs (jobs of all the suppliers to the sporting goods store) and induced jobs (people working to service those spending their paychecks on groceries, entertainment, etc.).

**\$31 million**

Kayaking contributes to the Berks economy annually.

18

**\$6 million**

Hawk Mountain Sanctuary annual local economic impact from tourism

**60,000**

On average, people who use the Schuylkill River Trail in our region annually.



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On average, people who use the Schuylkill River Trail in our region annually.





# The Business of Nature

## The “Return on the Environment” in Berks – Sept 2015

- Trails are the #1 recreational need;
- **Water quality & streams are the most important resource;**
- 73% of public believe parks, open space, greenways & trails increase property value;
- **82% of public agree that it’s important to preserve habitat and create connections for wildlife movement.**

### So What?

#### Outdoor Recreation is increasing in Berks County.

Demand for outdoor recreation is increasing at the state and Berks County level and the natural resource capacity needs to be maintained and expanded to meet future demand.

*What would happen if your favorite park or fishing spot would close due to new development or lack of funds?*



#### According to Berks Countians:

- Trails were ranked #1 as “most important” in satisfying household recreational needs.
- Water quality and streams were ranked as “most important” natural resources to Berks County citizens in a survey, followed closely by scenic views.
- 73% (mean) of respondents in a county-wide survey agreed that parks, protected natural areas, and greenways & trails increase the value of nearby properties.
- Over 82% of survey respondents agreed that it is important to preserve habitat and create connections that will allow for the movement of wildlife.

Citizens Survey Results - Berks County Greenway, Park and Recreation Plan

### What Now?

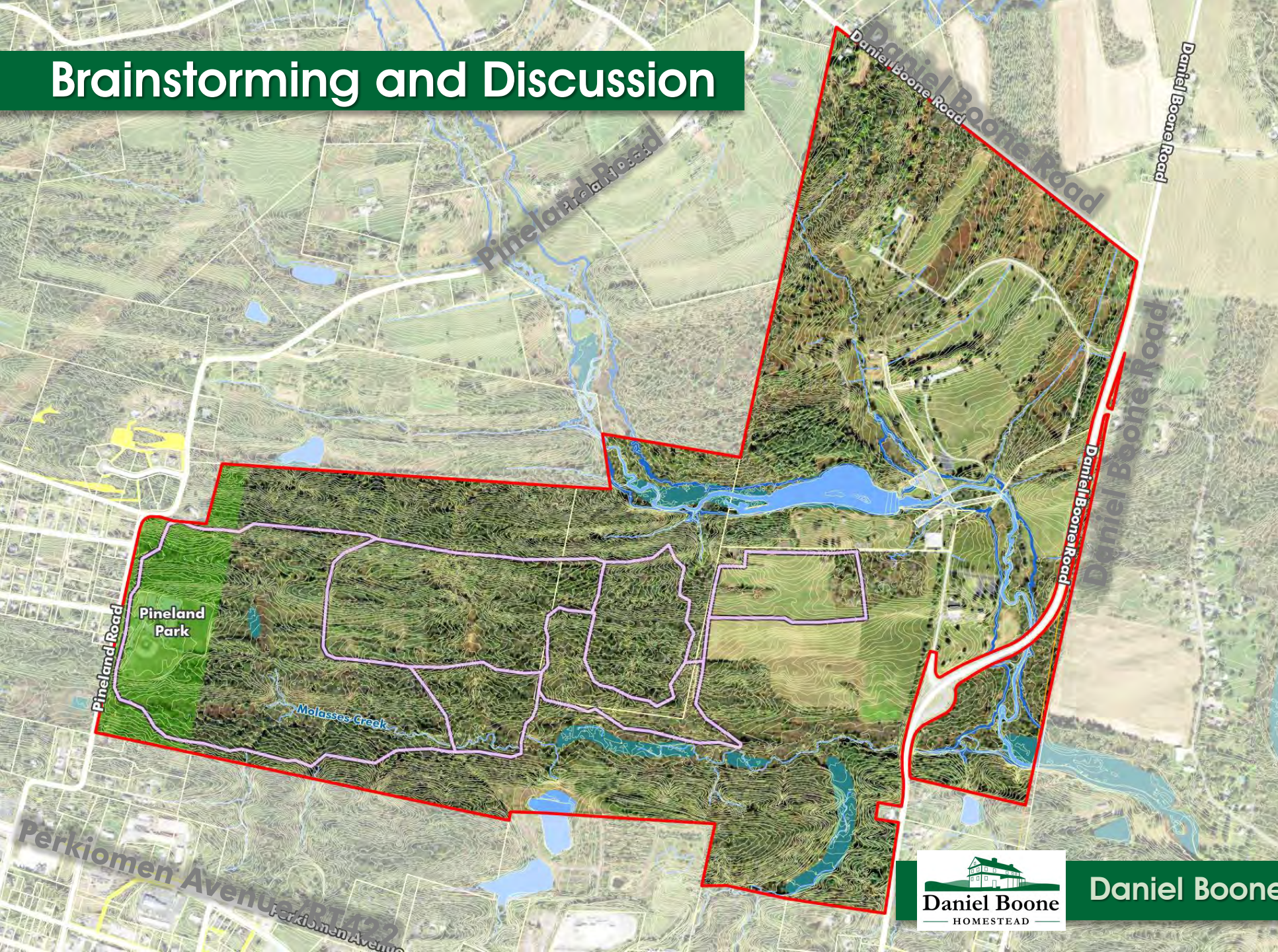
Currently only 39% of Berks County residents live within ¼ mile of a public park or recreation area. The National Park and Recreation Association (NRPA) recommends at minimum, municipalities should provide 6.25 – 10.5 acres of open space/recreational opportunities per 1,000 residents. 62% of the 73 municipalities in Berks are deficient for providing recreational facilities to their residents.

Implementation of the County Greenway, Park and Recreation plan and more connections and promotion are necessary to provide open space and recreational opportunities to the Berks county residents that better meet the national standard. Promote the public resources and volunteer to help maintain them. Local governments, agencies and non-profit organizations need to think across boundaries to utilize and promote greenways and recreation regionally.

23



# Brainstorming and Discussion



Legend

- Site Boundary
- Water
- Trails
- Parcels
- Municipal Boundaries
- Parks
- Floodplain
- Easements
- Wetlands

- We welcome your comments:
- Please type questions into the Q&A box.
  - If you are listening on a phone, you will be muted on entry - please press \*6 to unmute/mute your phone.





# Brainstorming & Discussion

## GOALS

**Goals for the project** — initially broad, then specific

**Facts** - What we know already about Daniel Boone Homestead

## FACTS

## CONCEPTS

**Ideas for attaining project goals** — Opportunities for improvement

**Partners** - Groups, Businesses, Institutions to create a partnership with

## PARTNERS





# Brainstorming & Discussion

## GOALS

PROVIDE FOR  
ALL AGES

PRESERVE  
RESOURCES

IMPROVE SAFETY  
FOR PEDESTRIAN  
& EQUESTRIAN

## FACTS

EXISTING  
HISTORICAL  
STRUCTURES

EXISTING  
EVENTS

EX.  
PLAY AT  
PINELAND

## CONCEPTS

TRAIL  
HIERARCHY

WILDLIFE BOXES

HISTORY  
PROGRAMMING

## PARTNERS

DCNR

BERKS  
COUNTY

EXETER TOWNSHIP



# Next Steps – Online Survey

1. Please take the Public Opinion Survey:

<https://www.surveymonkey.com/r/DanielBooneHomestead>



## Daniel Boone Homestead Public Opinion Survey

### Demographics

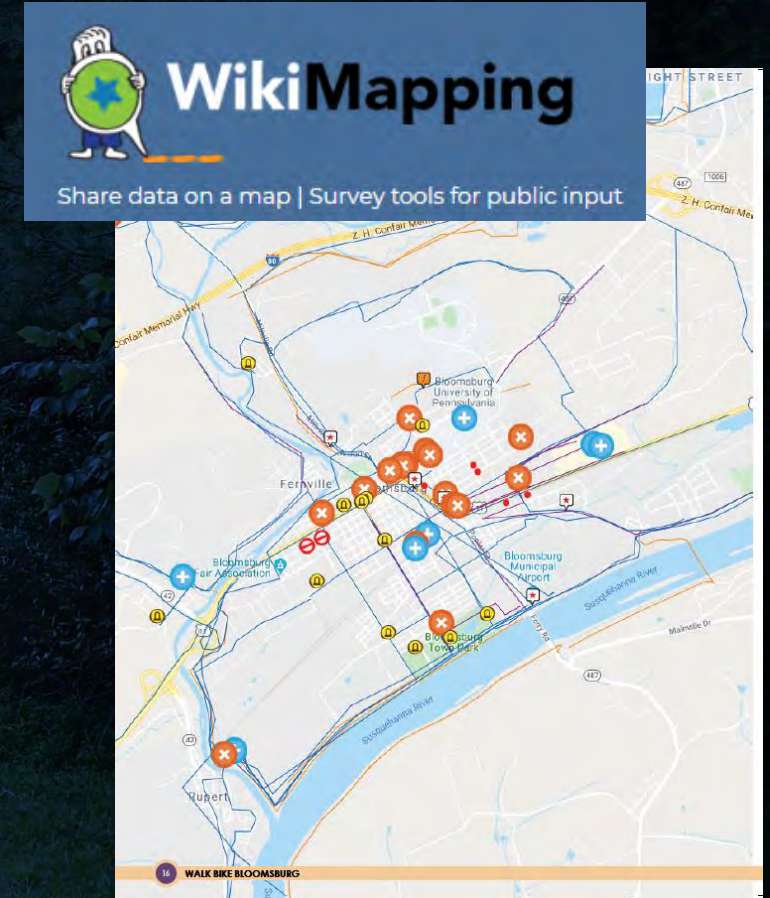
1. What is the name of the municipality in which you live?

- Exeter Township
- St Lawrence Borough
- Amity Township
- Robeson Township
- Birdsboro Borough
- Union Township



# Next Steps: Wiki Mapping

1. WikiMapping allows residents to virtually pin on a map:
  - Please pin any known locations for existing conditions and locations for desired open space and recreation improvements.
  - The link to this resource will be activated this week:  
<https://wikimapping.com/DanielBooneHomestead.html>



*Result Formatting – Bloomsburg PA Walk / Bike Project*





# Next Steps

1. Public Meeting #2 – Thursday, May 27 @ 7pm
2. Public Meeting #3 - Monday, September 27 @ 7pm

Meeting Title	Meeting Date	Meeting Time
Committee Meeting #1	January	
Committee Meeting #2	February	
Public Meeting #1 - Programming / Brainstorm	March	
PHMC Meeting #1	April	
Committee Meeting #3	April	
<b>Public Meeting #2 - Initial Concepts</b>	<b>Thursday, May 27</b>	<b>7PM-9PM</b>
Committee Meeting #4	June	
Key Person Interviews (10)	Dates TBD	TBD
Web Based Survey - write and administer	April 1 through September 1	online
Wiki - Mapping interactive community mapping	April 1 through September 1	online
Public Meeting #3 Draft Plan - BOS Meeting	Monday, September 27	7PM-9PM
PHMC Meeting #2	October	
Committee Meeting #5	November	
Public Meeting #4 - Final Plan	Tuesday, November 30	7PM-9PM





# Thank You

## SIMONE COLLINS LANDSCAPE ARCHITECTURE - 610.239.7601

- **Peter Simone, RLA, FASLA, Principal**  
[psimone@simonecollins.com](mailto:psimone@simonecollins.com)
- **Pankaj Jobanputra, AICP, Project Manager**  
[pjobanputra@simonecollins.com](mailto:pjobanputra@simonecollins.com)
- **Melissa Barley, Staff Landscape Architect**  
[mbarley@simonecollins.com](mailto:mbarley@simonecollins.com)
- **Geoff Creary, Land. Arch., Trails & Connectivity Expert / Graphics**  
[gcreary@simonecollins.com](mailto:gcreary@simonecollins.com)

## EXETER TOWNSHIP - 610.779.5660

- **Laurie Getz, Assistant Township Manager**  
[lgetz@exetertownship.com](mailto:lgetz@exetertownship.com)
- **Will Brugger, Zoning Officer**  
[wbrugger@exetertownship.com](mailto:wbrugger@exetertownship.com)







**Daniel Boone Homestead Master Plan**